University News

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D.A. GHANCHI

A New Paradigm for Education Management in the 21st Century

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Industry-University Partnership

—Global Trends and Relevance for India

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b) A Bachelor's degree in any discipline and language proficiency in the foreign language concerned equivalent to at least a two year diploma level course

For 7 & 8 : An M A in the language concerned with at least a second class or grade C average (relaxable in the case of sponsored teachers with a Master's degree in any subject and at least 5 years experience teaching the language concerned at a recognised institution ;

For 9 & 14 : An M A. in English at least second class or an equivalent qualification In the case of sponsored teachers of English with at least 5 years teaching experience either an M A in English or at least a high second class (Grade B) M A in an allied subject – Linguistics Education Mass Communication or Psychology **and** PGCTE through distance mode or Semester 1 of the PGDTE/DES with a minimum GPA of 3 00 and without a Grade E

For 10 & 15 : An M A in the language concerned (for Arabic M O L) with a high second class or grade B average (55%) **OR** an M A in the language concerned (for Arabic M O L) with grade C average and PGCT/DT with at least on overall grade C **OR** an M A in the language concerned (for Arabic M O L) and a minimum of 5 years) experience teaching the language concerned at any recognised institution

For 11 : An M A in English at least a high second class (55% or above) or M A in English with a PG Diploma in the Teaching of English/English Studies from the Institute at least Class IIA/Grade B average or an equivalent qualification

For 12 : An M A in the language concerned (for Arabic, M O L) with a first class or grade A average **OR** M A in the language concerned (for Arabic, M O L , with at least a second class or grade B average and PGCT/PGDT with at least an overall grade C **OR** M Litt /M Phil or an equivalent qualification in the language concerned **OR** M A. in the language concerned (for Arabic, M O L) and a minimum of 7 years experience teaching the language at any recognised university

For 13 ; An M A. in English/M A. with at least second class in an allied subject (Linguistics/Education/Mass Communication and Psychology) with 5 years experience of teaching English/M A. with at least a second class and with 5 years experience of teaching 'Methods of Teaching English' at M Ed /B Ed level **and** a PGCTE from CIEFL or successful completion of Semester 1 of the residential PGDTE

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- The Written Test for M.A programmes will be held at the following **Centres** on ***Wednesday, 21st June 2000.***
  Bangalore, Calcutta, Cochin, Chennai, Delhi, Hyderabad, Lucknow, Pune, Shillong
- The Written Test for all programmes in Foreign Languages will be held at Hyderabad.
- The Written Test for the **M.Phil. and Ph.D. Programmes** will be held at **Hyderabad** on *Monday,* ***19th June 2000.*** Interviews for the same will be held on *Tuesday, 20th* ***June 2000.***

G. VENKATESHWER RAO
REGISTRAR

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A New Paradigm for Education Management in the 21st Century

D.A. Ghanchi*

Introduction

The 21st century promises to herald a different environment for human development in all walks of life, including education. Among numerous new ingredients of the environment, a very potent one will be knowledge. It is going to be a knowledge-driven century with all its implications. Education being a service, based on knowledge, past, present and future, its entire field is going to be tremendously influenced by the knowledge-saturated environment of the 21st century.

Education, and all related activities like teaching, learning, evaluating research, materials production, management of education etc, will, therefore, have to prepare themselves to meet the knowledge-driven socio-cultural environment that will emerge year after year in the 21st century. Who will bear this heavy cross? In reality, all stake-holders in the enterprise of education — policy makers, curriculum framers, teachers, principals, deans, education managers, evaluators, research workers and students — will be required to bear this cross.

Principals and deans, as managers, will be required to lead their institutions into that challenging environment — the knowledge-driven environment, with all its implications. The principals and deans are leaders and managers of education in action, in their institutions and in society at large. What will be their functions as knowledge workers of the 21st century in the context of their crucial position as the heads of their institutions?

The Institution

The educational institution of the 21st century is being visualised as a place where knowledge will be generated, where knowledge will also be refined and reinvented, where knowledge will be examined, explored and restated, where knowledge will be acquired by both teachers and students, where knowledge will be shared by the community, and where knowledge will be transformed into experience, into action, into wisdom, into vision and in one form or another. The institution will cease to be a place of mere transfer of information and facts to the students by their teachers. That function belonged to an age which worked on the principle of master and servant, giver and taker. It was a colonial, medieval concept of the have's and the have not's, appropriate for a society starved of knowledge which itself used to be a fixed commodity.

So, it is an altogether new institution, freed from the constraints of a fixed body of knowledge, an immutable mass of information, a learned teacher and an empty vessel like a student. Instead, it is an institution without walls, pulsating with new dynamics of freedom, self-inquiry, self-exploration, self-management, self-evaluation, an un-

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**Formerly Acting Vice Chancellor, North Gujarat University, Patan (North Gujarat).*

restricted pursuit of knowledge, with or without any outside aid. The teacher will no longer be a source, let alone the only source, of all knowledge and wisdom, but will only be a fellow-traveller, a co-worker, at times a role-model, at times a guide, a facilitator on the path to self-unfolding. Naturally, walls and taboos shall crumble !

The New Paradigm

In order that the education manager of the 21st centurycould provide effective leadership, he should be a perceptive, imaginative, enterprising, proactive and sensitive education manager.

Here is the new paradigm of education management that he should keep in mind.

7x3 [V+M+S] Successful education management

Here V = Vision, M = Mission, S = Strategy

Each constituent of the paradigm comprises seven elements.

They are as follows :

I VISION

The education manager of the 21st century must have a clear vision of the institution of education and his assignment of the 21st century. The vision shall comprise the following components :

(1) A Human System

He shall view the institution as a comprehensive Human Organisation in all its implications. It shall not be treated as a machine or a dead over-directed system.

(2) A Thinking System

He shall head an organisation with its own mind, a thinking body in all respects, which evolves its own thoughts, and imaginations continually.

(3) A Responding System

He shall head a sensitive human body, which gets sensitised, conscientised and humanised and which feels and responds to others empathetically.

(4) A Learning System

He shall deal with an organic system whose senses work, absorb, adjust, redefine, change and assume new forms. It continually sheds obsolescence and acquires newness and freshness.

(5) A Pro-active System

His shall be an institution that shall take action and initiative to push ahead on its own in an all-emerging scenario.

6) A Global System

His institution will have both local and global orientations in visualising its roles, tasks and functions and transacting them with commitment.

(7) A Productive/Creative System

His organisation comprising people, programmes, activities, materials, dreams etc, shall be maximally productive in all respects; productive of knowledge, ideas, services, systems, personnel etc. It shall no longer be a cesspool of dead ideas. It shall be a blossoming tree rather that dead wood.

In short, only a system with vision, people with vision, and programmes with vision, shall survive in the 21st century. Let's remember, that a vision is not a dream, not certainly a pipe dream, not a fantasy, but a distant image of what the institution, its managers and its personnel aim to realise. A vision, is a distant, far-off, exciting, leading, encouraging, beckoning, lodestar that shall guide all endeavours of the institution, at whose helm shall be a visionary principal, a person of vision for a challenging future.

II MISSION

A mission is the education manager's commitment, a covenant to identify with, to work for, to strive for, and not to relent till it is achieved fully. The mission provides a thrust, a force, a push and an inner urge "to do or to die". The institute of the 21st century is supposed to have seven missions as under :

(1) To do human resource development

It is not just the 3 Rs, the syllabus, the examination or the textbook that the institution shall be concerned with, but it is the entire gamut of human development that will be the mission of the institution to realize.

(2) To make learning self-fulfilling

Learning shall be freed from rote, imitation, repetition, regurgitation, manipulation and other dependence. Instead, it shall be an enterprising adventure, self-sustaining, open, multi-sourced, creative and life-fulfilling, and rolled in one.

(3) To establish synergy between education and technology

Education shall be technology-savvy, and, therefore, enormously strengthened with alternatives open for learners to learn, to generate knowledge and to reinvent the truths of life !

(4) To turn education into a socially sensitive pursuit

The institution and its programmes will be wedded to society; to seek answers to social concerns;

and to empower society through knowledge, its products and service.

(5) To promote merit, quality and excellence

To meet the challenges of life governed by modern science and technology and challenged by myriad problems of human development, education shall have to equip learners with quality achievement in all respects. Zero defect shall be the motto of the institution in all respects.

(6) To make R & D an integral part of the system

Education in the 21st century shall be a self-renewing force. That will require R&D support in various forms in its diverse pursuits.

(7) To make the future happen

The education manager shall have to be a futurologist in action. He must both anticipate the future scenario and make the perceived future take shape through his imagination, inspiration, leadership and managerial competence. He must, therefore, push back the frontiers of contemporary knowledge. He must motivate students to be future-makers in all walks of life.

In sum, the mission statement will be a source that shall provide a sort of a virtual power-house effect on the system — the institution, its professionals, staff, students, parents and society. A mission is an article of faith and commitment for the education manager as well as his team.

III STRATEGY

No vision can be realised and no mission can be implemented and carried out to its completion, without a well-articulated, sensible, and task-related strategy. A sound strategy comprises convergence of methods, means, and materials, and coordination, and pooling of components — all leading to the accomplishment of a vision or a part there of and carrying out of a mission with fervour and dedication. The seven components of the strategy in question consist of the following :

(1) To Professionalise the entire enterprise

The education manager will have to infuse professional attitudes, approaches, behaviours and relationships in all aspects of education — teaching, learning, testing, human relations etc. He will need to take care to give a human face to all the dealings. It will have to be a humane management *per se*. The manager will have to be a communicator and, a master of negotiation skill.

(2) To benchmark all endeavours

He will have to establish high templates, develop competitive edge, press R&D activities and make the entire environment quality-bound. He will have to set up a brand name and never to compromise on these issues in anyway.

(3) To autonomise the system

He will have to liberate, deregulate, dehierarchise, delegate, and recognise the smallest share, accept alternative routes, provide freedom to think, to differ, to decide, to withdraw, to innovate and to experiment. Autonomy shall be the ruling spirit of the entire system.

(4) To transparentise top down

He will have to build a climate of openness, frankness, involvement and participation; and let all have the right to know and to give opinion on. This will equalise all. Truth shall be a common property to be shared by all.

(5) To multi-source the system

A knowledge-based society should have alternative sources for knowledge inputs — people, media, I.T., ideas, suggestions. Any individual, whatever his station, is not the sole source of wisdom or strength. The education manager shall pool the community reservoir, technology reservoir and even the traditional folk-knowledge reservoir.

(6) To network all humans and the system

The manager should realise that the world is getting wired. So he must network people, ideas, resources, and practices. He should form human teams as well as non-human clusters. He should form webs. He should network locally and globally, and get inputs. For this, he should have interpersonal communication skills of a high order.

(7) To operate on a fast track

The 21st century will be an age of fierce competiton, therefore one must be just in time for everything — a reform, an experiment, a product, a programme, an innovation or a change. The education manager must do time management. He must also do crisis management as well as trouble management. He must just do it, and should not get sidelined for delay, procrastination, drift, indecision, waverliness, a dogmatist attitude, inflexibility and non-compromisingness. Bill Gates, the richest human being on the globe at the end of the 20th century, rightly advocates a fast-track strategy of life and work in his latest book *Business At The Speed of Thought*.

An Action Plan

Here is the paradigm to help one operate effectively as a principal, a dean, a head of any endeavour in education i.e. an education manager in the 21st century. Gone are the days of autocratic, unilinear, command-and-control principalship and administratorship.

The 21st century shall need students as knowledge workers, rather than subservient, uncommitted, non-productive, uncreative robots that carry out tailor-made tasks based on rote-ability. The century shall need generators of knowledge, creators of knowledge, adventurers of knowledge and self-learners with skills to operate in a competitive world.

So let's revisualise education management leadership. It's a broad-based human resource development related leadership. It shall need the delineation of the three dimensional profile of the education manager's personality and his professional assignment in terms of (1) Vision, (2) Mission, and (3) Strategy.

The Action Plan shall have to be developed co-operatively by involving society, education trusts and corporate bodies, parents, teachers and, of course, students. It shall have to be developed through interaction, through think-tanks, through case studies and through brain-storming. It should be an on-going exercise throughout the year to design the three dimensional action plan. The suggested 21-point design can be appropriately adjusted to specific needs with due flexibility.

Conclusion

Every age has its needs of development, and education is an aid to such development. It must be attuned to the age it operates in. The 21st century, being primarily a knowledge-driven age, will need a different type of education. The education manager of the 21st century shall be a knowledge-worker with a mandate to lead, to facilitate, to motivate, to encourage and to empower his co-workers, students and the community. Let's hope he/she will meet the task with courage, confidence and commitment by suitably implementing the new paradigm.

Let him/her be enthused and inspired by the immortal message, the late Poet Laureate of England, John Masefield, gave to the teachers as under :

To the Nations Teachers

Therefore go forth companion when you find,
No highway more, no track, all being blind.
The way to go shall glimmer in thy mind — (1)

Though you have conquered the earth and charted the sea,
And planned the course of all the stars that be,
Adventure on, more wonders are in thee — (2)

Adventure on, for from the littlest clue
Has come whatever worth man ever knew,
And the next to lighten all men may be you ! ❏

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PRINCIPAL

Industry-University Partnership
Global Trends and Relevance for India

B.M. Naik*

Compatibility between higher education policy and industrial development policy is crucial for techno-economic and social well being of a nation, so observed UNESCO, and to make it happen it has designed a programme known as University-Industry Science Partnership (UNISPAR). The programme aims firstly to match university education with industry needs, secondly transfer research findings from university to industry, thirdly to retrain its in service personnel and maintain them competent all the time, and finally to continuously reorient university curriculum to cater to every developmental sector. This way university on continuing basis is expected to supply and maintain enough qualified manpower in business, trade and industry, and provide newer knowledge to enable economy to remain competitive. UNESCO further observed that most of the universities, especially in developig countries, are divorced from the needs. Courses offered by them and research conducted, are suffering badly from insularity to ground realities.

UNISPAR programme is therefore being implemented by governments in both the developed and developing countries. Several international conferences have taken place to review and accelerate the rate of progress. In India too, UNISPAR has caught the attention of the UGC, which has appointed a committee of which the author is a member. This article aims at developing an awareness amongst the key people in both the academics and industry and prompting them to move towards each other.

Can Indian Universities Propel Industrial Growth?

Indian industry so far is largely propelled by foreign collaborators. We are constantly buying technology and they are selling. Rules existed for import but not for technology transfer from institutes within the country to industry. Higher education institutes have not gone nearer to industry to provide the type of manpower or technology they need. Institutes have been offering standard courses, ignoring the specialised needs of industry. The higher education policy and the policy for industrial development are framed "stand alone" as if one has nothing to do with other. They lack a mechanism to make them mutually supportive. As a result what is wanted is not taught and what is taught is not wanted. There is a complete mismatch between the two. While there is unemployment on one hand, there is shortage of specialised manpower on the other. There are many industrial estates built with water, electricity, roads etc. But then plots in them for want of entrepreneurs are vacant. Many of the enterprises are sick. They are using old outdated technology and hence remain less-competitive. Academicians have become sterile for want of chance to influence industry. Bill Gates in his book, *Business At The Speed of Thought* has highlighted that in developing countries because there is almost a complete lack of coordination between universities and industry, the installed capacity of most of the industries is not fully utilised. Organisations like C.I.I., chambers of commerce, FICCI have been complaining about the irrelevance of education. They have reported to govt. that indian industry is missing opportunities due to the incompatibility in policies.

Realising/the need and importance, Maharashtra Government has created in 1998 a new Directorate of Industry Institute Partnership. It has appointed a Director supported by suitable staff. The Directorate is very much in infant stage. It is hoped that it will help implement the UNISPAR programme in Maharashtra. Besides UNISPAR, there are some schemes like Incubator, Technology Park, Innovation Centre, Technology Relay Centres, Patent and Licencing of Technology, which have proven worth elsewhere in the world. Improvement in higher education to build human capital can come only through synergetic efforts. If they do not do this or even delay, foreign univesities, in near future, are likely to capture Indian education market. The survival of Indian universities and survival of Indian

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companies is at stake. This ought to be considered for making the policies compatible.

Experience of Germany — Technical Universities

Germany was the first country in the world to move towards capitalisation of knowledge and accordingly it developed well adapted education institutes and research establishments. The "Technische Hochschulen" are offen portrayed as the linkpin of German education service to industry in 19th and early 20th century. Then came Technical Universities in sixtees. Now 84 of them in a country of 11 crores population are feeding new knowledge that is to say new technology to industry besides the competent manpower. The technical universities have, attracted investment and have contributed greatly to raise industrial performance. They gave "Technology Push" which enabled industry to encash opportunities in world market arising out of new technologies. "Stenibeis Centre" is yet another scheme to aid small and medium scale enterprises.

European union under the leadership of M/s Edith Cresson has launched the programme of Innovation and Technology Transfer. Technology relay centres, hundreds of them, have been designed and installed all over Europe to diffuse technology. Another scheme of "Innovation Centres", more than 200 of them, adjacent to universities, is also operated jointly by chambers of commerce, universities and research laboratories. Can and should we design such schemes ? Have we planned them? Have we thought that compatibility between higher education policy and industrial development policy is crucial for India's future?

Experience of USA

Business circles of USA admitted long before that industrial training was best carried out in American colleges and universities. Universities became an annexe of the industrial research laboratory. Companies quickly grasped that not all research could be done in industry. Universities possessed special expertise and equipment that could also be harnessed to entrepreneural innovation. In 20th century after G. Bush commission report *Science — The Endless Frontier* (1945), American universities became research universities. Teaching and research in these universities is linked to enterprise. It is because of this that higher education in USA is truly higher and relevant. The cost of research, and cost of education taken together is much lower besides higher output and better quality than if they were conducted in isolation. In addition, institutes like MIT have set up foundations to help local entrepreneurs to increase their "capacities to seize opportunities". It is well realised by business circles that without university intervention they cannot capitalise on knowledge. The American economy owes greatly to the research universities and professors in them.

There was a long debate in USA and Europe whether universities should restrict their research to industry or it should be liberal. Academics of MIT, Boston and other universities ultimately decided in favour of industry orientation, and this is the main reason that they are ahead of rest of the world.

Science Parks, Incubators, and Innovation Centres are very popular and successful schemes jointly implemented by industry-university and government in USA. New technology based firms are given birth in these centres and change process as a whole is accelerated. Creation of new technology, new products, new proceses is facilitated leading to employment and income generation and proportion of sick industries is reduced. Entrepreneurs who have ideas to start hi-tech enterprises are facilitated by good infrastructure and venture capital fund, without being required to waste time, effort, and money.

However, not satisfied by higher education some companies like Motorola and IBM have set up their own corporate universities, to educate their own employees. This approach they say which enabled them to build world class employees, and world class companies. In addition, some SMEs are coming together and running common learning centres. Shall we draw lessons from the experiences in other countries?

In these schemes "Intellectual Capital" is nursed and utilised. Can we afford to ignore or delay in these matters? The nation is at risk for want of organizational innovations such as research parks and innovation centres.

Teaching Company Scheme of U.K.

U.K. has a unique scheme known as Teaching Company Scheme (TCS). There is a special directorate established by government to implement the scheme. Under the scheme a scholar does innovation under joint supervision of an expert from industry and another guide from university. He is paid scholarship by industry and government pays for equipment etc.

All other countries like Japan, Canada etc have taken out massive scale schemes to capitalise new knowledge suitable to their local conditions. It is firmly believed that next millennium is the millennium of knowledge. This inevitably means that people, as carriers of knowledge will be the nations' most important assets. 'Nation's growth is people's growth' is the new paradigm. This is precisely what the Nobel Laureate Dr. Amartya Sen advised the Government of India.

From the lessons of experience elsewhere in the world it can thus be concluded that government should, so as not to miss industrial development bus, remove incompatibility between the policies for higher education and policies for industry. It should focus its attention on and direct investment to establishment of technical universities. It should restructure existing universities to carry out research-education- and training for industry. It should do re-engineering and adopt new strategies, systems and procedures, revise rules and regulations so that capitalisation of knowledge in commerce, trade and industry takes place. New organizations so as to face new challenges like, Science Park, Incubator, Innovation Centre, Technology Relay Centre, Patent and Intellectual Property Rights Centre need to be installed, forthwith.

Will industry-institute interaction become a national priority? If India is to become an industrial nation, using front-line technologies, it will have to. It must make available to industry both in private and public, new ideas, new techniques, inventions generating them indigenously or importing, if necessary. Government should initiate a movement to build technical universities. The increasing number of unaided engineering colleges will get better stabilised only if there are technical universities, to attend.

We have good institutes so also good industries. But they cannot become better unless they synergise. It is a challenge for new government to remove impediments. It is hoped that the policy makers, captains of industry, and leaders in academics will come together, make a fusion of efforts and evolve compatible policy. ❑

INDIAN SCIENCE CONGRESS ASSOCIATION

14, Dr. Biresh Guha Street
Calcutta-700017

ANNOUNCEMENT FOR AWARDS : 2000-2001

1. **Professor Hira Lal Chakravarty Award:** Applications in prescribed forms are invited from Indian Scientists, below 40 years of age on December 31, 1999 with Ph.D. degree, having significant contributions in any branch of Botany — either pure or applied. The award carries a cash amount of Rs. 4,000/- and a certificate. The award is given on original independent published work carried out in India within three years prior to the Award. Awardee will be required to deliver a lecture on the topic of his/her specialisation during Annual Session of the Indian Science Congress in the Section of Botany. Last Date of submitting application is **July 15, 2000.**
2. **Pran Vohra Award:** Applications in prescribed forms are invited from Indian Scientists below 35 years of age on December 31, 1999 with Ph.D degree in Agricultural Sciences from any University or Institution in India, having significant contributions in any branch of Agricultural Sciences. Only research done in India will be considered for the Award. The award carries a cash amount of Rs. 10,000/- and a certificate. Awardee will be required to deliver a lecture on the topic of his/her specialisation during Annual Session of the Indian Science Congress in the Section of Agricultural Sciences. Last date of submitting application is **July 15, 2000.**

For proforma of application forms and necessary information, please write to the General Secretary, Indian Science Congress Association, 14, Dr. Biresh Guha Street, Calcutta-700017.

Fax No. 91-33-2402551, E-mail-isca.assocn@gems.vsnl.net.in Phone Nos. (003) 240-2551/247-4530.

Postgraduate Diploma in Future Studies (PGDFS) Programme Through Distance Mode-I

A Delphi Approach

S.L. Mahajan*

The term 'Futurology' is known differently in different countries. In the USSR, it is popularly known as prognostics; in France as Futuribles; in Western Europe as Future Research, and in the United States of America as Futurism, and it has got the name Futuristic Studies or Future Study in India. What is education for if not to train the youth of India to envision, prefer and realize a new Future, says Dr. Satish C. Seth, Father of Futurology in India. The main concern of future studies is to assess the resources of a nation as well as world and to look into the demand picture. Resources imply human and physical resources and 'demand' picture implies present demand and demand during the next 25 to 30 years and beyond. Future studies is the science of the present as much as it is the science of the future. Futurists are concerned with the search for newer images and ideas with the needs of today and tomorrow.

Where do we stand today? Will man dominate poverty and disease one day? Will men from earth colonize new planets? Will men create a second third and fourth earth? Will special robots replace teachers and surgeons one day? Will all universities and colleges in the year 2010 be only contact centres of the students for distance-education? A compendium of such questions could easily get as big as Delhi telephone directory? The answers to all these questions can be given by introducing new courses on future studies like Postgraduate Diploma in Future Studies (PGDFS).

Related Literature

Research in the area of future studies of education has a very recent origin. A bird's eye view of these studies reveals that since 1979 efforts have been made to conduct studies related to future forecasting of curriculum, examination system, educational administration, teaching profession, science and technology education etc. Almost all the studies have western base. The estimated time of future forecasting was fixed between 1990 and 2000. Delphi technique has gained popularity among the methods used in future forecasting. There are instances of use of other approaches like documentary studies and expectation surveys in the future studies. An overall view of these studies is as under :

Stule, Robert and Duff (1979), Davis (1980) and Dobbs (1981) have explored the educational administrative fields in the future. Otto (1979) estimated future roles and functions of public service librarian. Poolman (1979) conducted a futuristic study on physical education. Hiseka (1981) explored the sports programme for the future of American community college. Gaylord (1980), Brown (1980), Macmillan (1980), Nowcki (1980), Scantan (1980), Potter (1981) and Dillon (1981) have conducted studies on future planning and implications of science and technology, teacher education and special education. Studies conducted by Dixon, Fletcher, and Doodle (1979), Wallies (1979), Dragseth (1980), Doyle (1980), Dulaney (1980) and Fisher (1980) had focused on exploration of future oriented pre-school examination, future oriented programme, future role expectations, curriculum, etc.

In the Indian context, significant studies have been conducted at Devi Ahilya Vishwavidyalaya, Indore. Mohan (1985) highlighted the reactions of undergraduate college students towards the game Future Oriented Value (FOV). Mukhati (1988) researched on 'Forecasted Participants of Academic Staff College (ASC) Programme and their willingness in relation to Demographic, Academic and Institutional Background'. S.L. Mahajan (1989) worked on Development of Curriculum Outline for Undergraduate Students through Delphi Method.

Problem of the Study

Future studies have emerged as an area of interdisciplinary study. The study of future is essential from the point of view of building our own future and facing the challenges linked with man and the society and also different fields of discoveries and their applications. The concept of futurology in education is still in the infancy stage. Hence more conceptual works are needed to be done in this area.

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Further, the efficiency of different approaches to future studies can be scrutinised through further research studies. It is a sad story that even autonomous colleges have not ventured to take this bold step to make education meaningful and purposeful. Since no work has been done in the field of introducing future studies course at Distance Education (DE) level in India, which seems to be of paramount importance, the researcher has made an attempt to conduct a study for development of curriculum on future studies at national level (IGNOU).

Objective of the Study

To study the experts' opinions on introduction of Postgraduate Diploma Course in Future Studies (PGDFS) in IGNOU in terms of relevance, time, eligibility, form, teaching-learning strategies, course materials, teachers, project work and output through Delphi method.

Delphi Method

Delphi method is treated as a popular method of conducting studies on developing curriculum. This is a method through which the experts and participants' opinions are sought on different dimensions of curriculum through different round surveys till the final and most homogeneous finding is arrived. The group of persons concerning the problem may belong to diverse backgrounds with respect to expertise. Heterogeneity of the participants can strengthen validity of results.

Questionnaire survey is treated as a powerful means for Delphi method. One questionnaire was prepared with nine dimensions to collect necessary data for achievement of the above objective. These dimensions were 1. Relevance perceived by the experts, 2. Time of introduction, 3. Eligibility for this course, 4. Form, 5. Teaching-learning strategies, 6. Course materials, 7. Teachers, 8. Project work, and 9. Output.

The units for these dimensions were finalized on the basis of seminar documents available on the course contents of futurology at higher education stage, and different curricula available on futurology course in different universities. There were close and open ended questions and usually most of the questions were supplied with three point rating scale, such as 'relevant to a large extent', 'to some extent' and 'not relevant at all.'

Sample and Data Collection

The sample was restricted to 52 co-ordinators of 'Technology Forecasting and Future Studies Unit' and 50 lecturers, readers and professors of Mumbai University. In all 60 persons were contacted by post and 50 lecturers, readers and professors of Mumbai university were contacted personally for data collection. Twenty nine respondents responded by post and 44 respondents responded personally to the first round data collection. Thus these 73 people constituted the final sample of the study. As per the Delphi method, 15 respondents who had responded extreme end responses than others were again contacted to reconsider their responses after observing the median and quartile values of all the units of the first round survey in the second round data collection. All of them returned the questionnaires duly filled in. In all the total sample comprised of 73 respondents.

Analysis and Interpretation of Data

The alternative type, qualitative and rating scale responses were analysed by making use of percentage, qualitative, and median and quartile techniques respectively. Fifteen respondents had expressed their opinions towards the extreme negative end. The median and quartile values for all the units of the first round data were calculated. The first and second round data were pooled together to calculate percentage, qualitative and median and quartile value respectively again for all the units of the questionnaire. The median values for almost all the units were higher than those of first round data collection. On the contrary the quartile values of almost all the units of second round data were lower than those of the first round data collection. It was not feasible on the part of researcher to go for another round data collection which might have resulted in more homogeneous responses.

It was also found that as a whole group responses were not heterogeneous because the quartile values in second round data collection for all the units did not vary except one from 0.24 to 0.49. The study revealed the following findings on different aspects of investigation :

Table 1 — Dimension 1 : Relevance Perceived by the Experts on Introduction of PGDFS

	First Round		*Second Round*	
No.	Median	Quartile	Median	Quartile
69	1.82	0.36	1.89	0.37

Experts have strongly favoured (Table 1) introduction of PGDFS at national level (Median value of 1.82 to 1.89 and Quartile 0.36 to 0.37 in first and second round data collection respectively. The main reasons for introduction of this course as specified by the respondents after qualitative analysis are as under :

- to train the learners of the present generation to be futuristic,
- to produce future oriented teachers for tomorrow,
- to prepare the pesonnel for planning and management activities,
- fast changing scenario due to scientific and technological developments needs PGDFS,
- future awareness decides the present actions and activities, and
- because higher education students being mature could contribute to future prediction and control.

Table 2 — Dimension 2 : Time of Introduction of PGDFS

Year	*First round*		*Second Round*	
	No.	*%*	*No.*	*%*
By 1998-1999	38	52.05	44	60.27
By 1999-2000	25	32.25	24	32.88
By 2005	07	9.5	4	5.48
Beyond 2005	2	3.0	1	1.37
Should not be introduced at all	1	1.0	0	0
	73	100	73	100

A majority (Table 2) of respondents (60 per cent) is very optimistic about the introduction of PGDFS in the year 1998. Of course around 33 per cent of respondents favoured 1999-2000 to be the year of introduction of PGDFS. A few reasons for this after qualitative analysis are as under :

1. Sooner the better, late means lagging behind, and

2. In many areas like energy, water resources, housing, transportation, the future looks very bleak. There is a great need of such courses.

The few reasons given for second alternative i.e by 1998-2000 are as under :

1. This will allow time for awareness and preparation, and

2. It should be introduced only if trained teachers and self-instructional materials are available.

Table 3 — Dimension 3 : Eligibility for PGDFS

No.	*Level of Eligibility*	*1st Round*		*2nd Round*	
		No.	*%*	*No.*	*%*
1.	Graduate of any Discipline	18	24.65	18	24.65
2.	Postgraduate of any Discipline	26	35.61	28	38.35
3.	Postgraduate of Futurology course only	23	31.50	27	36.98
4.	Postgraduate Teacher Education level	3	4.10	3	4.0
5.	Doctorate of any Discipline	2	2.73	2	2.73
6.	Any Discipline	1	1.36	1	1.36
		73	100	73	100

A majority (38.35%) of respondents (Table 3) has strongly favoured that the eligibility for admission to PGDFS must be postgraduate of any discipline. Around 36.98% favoured postgraduate of futurology course and 24.65% favoured graduate of futurology course and only 4.2 and 1% favoured postgraduate teacher education and doctorate of any discipline respectively.

Table 4 — Dimension 4 : Form of PGDFS at Different Level

No.	*Level of Introduction*	*1st Round*		*2nd Round*	
		No.	*%*	*No.*	*%*
1.	Compulsory for all Faculties	20	27.39	22	30.13
2.	Separate course at PG level at IGNOU and any other Open University in India	16	21.91	18	24.65
3.	Optional paper in each subject at PG level	16	21.91	15	20.54
4.	As a special paper in each subject at PG level	5	06.84	7	09.58
5.	Compulsory to Science Faculty only	6	08.21	6	08.21
6.	At Teacher Education level	4	05.47	3	4.10
7.	Compulsory to Science Faculty only	3	04.10	1	1.36
8.	Optional at all Faculties	2	2.73		
9.	At Doctorate level	1	1.36	1	1.36
10.	Any other	—	—	—	—
		73	100	73	100

Thirty per cent respondents (Table 4) are keenly interested in the introduction of PGDFS at all faculties as a compulsory subject and 25%, 21%, and 10% respondents are interested as a separate course at PG level at IGNOU and any other open University in India, as a optional paper in each subject at PG level and as a special paper in each subject at PG level respectively. The main reasons after qualitative analysis in support of the above statements are as under :

1. This is the only branch of science, which is unexplored; therefore it must be opened as early as possible,
2. Futuristic dimensions are to be developed among the students,
3. There is no subject which is not connected with the future, and
4. This course can be started at IGNOU level very smoothly.

Dimension 5 : Teaching-Learning Strategies

Futuristic exercises like group discussion (27%), gaining stimulation (21%), brain-storming and project work (14%) were given higher weightage whereas lecture method was given the lowest priority.

Dimension 6 : Course Materials

The experts who have given higher weightage to video, TV channels, Computer Aided Instruction (CAI), Computer Aided Learning (CAL), Computer Managed Instruction (CMI) are 36.98%, in self instructional form are 28.76%, and Compact Disk Read Only Memory (CD ROM) are 20.54%.

Dimension 7 · Teachers

It will be very difficult to identify teachers from a particular discipline to teach the course since it is an interdisciplinary course. A majority of experts—58% have given opinion in favour of special background of teachers in the area of future studies to be qualified for teaching PGDFS course. Moreover these teachers may belong to different faculties like social sciences, science and technology but preparation of teachers for future studies courses must be encouraged.

Dimension 8 : Project Work

Results indicate that such experiences carried out in real situations as well as simulative situations must be given higher priority (46.56%) and to conduct project work related to out of four papers declared in part-2 of proposed programme was given low priority (13.65%). (Highlights of the four papers is followed in part-2)

Dimension 9 : Output

So far future study is treated as an infant stage in the areas of higher education, therefore, a lot of value is attached to this area of study. Its practical outcome in the employment market is quite hazy. The expert opinion in this regard reveals that the output of PGDFS will be as follows :

— Can be absorbed in different planning bodies like ministries and departments of science and population studies,

— Every ministry should have immediate future management department and chances for those who had undergone the PGDFS course,

— A number of futurology groups be formed by the government to undertake research on practical problems under the products of these future studies course,

— In view of the growing importance of planning at grassroot level, every public purpose department will have to have such functionaries,

— In planning divisions of corporate organizations (Private & Public sectors),

— Government has to announce preferential treatment of students undergoing such futuristic courses,

— Wide scope in industries, commerce, planning, educational institutions, marketing research organization etc,

— However, considering the present economic scenario, some experts doubt about the employment opportunities of these products.

Conclusion

A pragmatic approach, to realise what we have mentioned so far in the existing state of utter chaos, has to be worked out. UGC should insist on universities, institutions of DE and open universities to introduce at least one such course. The programme outline generated through this study will act as a guide to the universities and institutions of national importance to introduce such PGDFS programmes through DE mode. Of course, on the basis of local specific situations, modifications can be brought into the proposed programme outline. Further studies conducted in this area can strengthen the efforts of introduction of such type of diploma programmes at IGNOU and other open universities as well as Distance Education institutions.

(To be continued)

INDIRA GANDHI NATIONAL OPEN UNIVERSITY

Maidan Garhi, New Delhi - 110068

IGNOU

Invites Applications for Admission to the

BACHELOR OF EDUCATION (B.Ed.) PROGRAMME

Commencing from January 2001 session

The B.Ed. Programme offered by IGNOU is an innovative programme utilising self-instructional materials and information technology along with interactive personal contact programmes. It aims at developing understanding and competencies required by practicing teachers for effective teaching -learning process at the secondary stage. The programme is essentially a judicious mix of theoretical and practical courses to develop in practicing teachers appropriate knowledge, skills, understanding and attitudes. Illustrations and cases of relevant situations and need-based activities comprise the core of each course of the programme.

The B.Ed. Programme of IGNOU is recognised by the NCTE vide their Letter number F3/DL-83/99/7807-7812 dated 31/05/99.

Eligibility for admission :

i A Bachelor's Degree or a higher degree from a recognised University.

ii In service teachers with two years (2 years) full time regular teaching experience in a primary, secondary/ higher/ senior secondary school recognised by the central or a state government or a Union Territory.

The admission to this programme is on the basis of an Entrance Test which will be conducted all over India on Sunday the August 6, 2000.

Duration : **2 years**

Medium of Instruction : **English**

General Information : The 'Student Handbook and Prospectus' can be obtained from all the Regional Centres of IGNOU or from Director, SR&E, IGNOU, Maidan Garhi, New Delhi-68 in person on payment of Rs.300/- in cash or through post by sending an IPO or Demand Draft of Rs.350/- drawn in favour of IGNOU payable at the city of RC or Head Quarter from where it is required by post. Please write your name, address and programme on the back of the demand draft.

Last Dates:

Requisition for supply of Prospectus by post : **31/05/2000**

Submission of forms at the Regional Centre : **30/06/2000**

Late and incomplete application forms without the required certificates shall be summarily rejected. No correspondence in this regard will be entertained.

Director (SR&E)

The Aim of Development

Ms. Ela R. Bhatt, Founder, Self Employment Women's Association (SEWA), Ahmedabad delivered the Convocation Address at the annual convocation of Banasthali Vidyapith, Banasthali (Rajasthan). She said, "The aim of development must be neither producerism nor consumerism but the satisfaction of fundamental needs, which are not only needs of *"having"* but needs of *'being'* as well... Subsistence is a fundamental human need, which must be satisfied through adequate income, nutrition, housing and work for all. But... protection, affection, understanding, participation, leisure, creation, identity and freedom are extremely fundamental human needs as well." Excerpts

The word 'Development' has become a global term. It has been used to rank countries as 'developed', 'developing', 'under developed'. These are mainly economic indicators. The economic levels of the 'developed' countries are high, therefore, they are ranked as 'developed'. The implicit reasoning in this ranking is that the state of the 'developed' countries is what all other countries should aspire for.

Simultaneously, there is a growing concern for dealing with poverty, with unequal distribution, with the gap between the rich and the poor. It is assumed that the problems of poverty and standards of living will be tackled by following the path of the 'developed' countries. By development, what do they mean? Basically mass mechanisation and industrialisation, high levels of output of goods and services, super affluence in material goods, high consumption of natural resources, increased leisure time, high mobility of people, fast communications, creating of an atmosphere where mental and intellectual skills alone become more and more valued.

The economic growth has to happen through industrialisation and so 'modernisation' and 'progress' have become equated with industrialisation. This has limited the measuring of 'development' and somehow led to the devaluing of the people themselves; and, it is the people who are the real focus of development. Development is the growth of people, of people's capacities and strengths, of people's participation and self reliance, of people's equality. No nation can develop unless her people develop.

I fail to understand how a nation whose people have produced Taj Mahal, and temples of Padmanabh or Ranakpur be called backward! The exquisite embroidery of Kutch and Rajasthan is in great demand in the boutiques of Paris, the Madhubani paintings of women of Bihar are in the international markets, how can one call them backward! Yes, they are poor and illiterate but poverty and illiteracy are necessarily not backwardness. Why should such talented people of ours remain poor and illeterate, that is the question, the answer to which you have to find.

You will have to use your learning to find how it can be possible to create our own options of progress and growth. We have to redefine 'backwardness', understand better what we want when we say 'progress' and 'modern'. Yes, we do want to progress, industrialise, modernise, globalise— but it has to be in our Indian way, at our own pace and priority. You will have to learn the politics of these options, and take decisions.

For that, we have to understand our cultural institutions, the displacing effect of new technologies on the work, culture and identity of our people, understand our mode of work which most often is self employment; we have to identify the forces which encourage concentration of resources in the hands of a few and destroy the decentralised traditional systems. We have to think and act with utmost urgency to come out of poverty without damaging our ecosystem, our values, our identity. We have to develop and nurture a sense of pride in our own life styles and value systems instead of running them down as 'backward'. You will have to develop forums for the illiterate and literate to hold each other's hands without exploitation. We have to aspire for reasonable levels of consumption which can be sustained for the country as a whole rather than for some people super-consuming at the cost of the majority of the people. You will have to reorient the directions of 'development' even for the so called developed countries.

It is likely that the environment around you may be hostile. Change is not easy. No matter how hostile it may be, you must never cease to insist that development is about people and not about objects. That the aim of development must be neither producerism nor consumerism but the satisfaction of fundamental needs, which are not only needs of '*having*' but needs of '*being*' as well. You will never deny that subsistence is a fundamental human need, which must be satisfied through adequate income, nutrition, housing and work for all. But you will also insist that protection, affection, understanding, participation, leisure, creation, identity and freedom are extremely fundamental human needs as well.

Our civilisation is Aranyak Sanskriti. Knowledge is known as Aranyak. Where the perception of life has been total — सर्वेषु हितेरता. But the onslaught on our natural resources has ruined our ecosystem. We have to realise that there can be no rational and equitable development without conserving our ecosystem. The human condition and the state of environment are very closely related to each other. The rural poor and especially rural women know this well. For example, the fire wood collecting women of Girnar forests near Junagadh often tell us, 'The Girnar is green when our lives are green'. They realise better than anyone else the symbiotic relationship between themselves and the forests.

Waste and pollution destroy the foundation for long term sustainable growth of the country. Land that erodes today cannot support a life of progress tomorrow. Water resources poisoned or spoiled for quick gains cannot be easily revived to yield steady lasting returns. But these and nature's other gifts can be both used, saved and multiplied. To strike and keep that balance requires vision, wisdom and the coordinated energies of the public and the government in a partnership for sustained development. This is the most important and urgent task lest the whole country spreads into a vast wasteland.

While referring to the development of human capital, I hardly need to draw your attention to the female resource of our country, which is neglected today. Do you know who the women of India are, and what do they do? A vast majority, say 80%, of the female population is rural, economically very active but poor and illiterate. I travelled as the Chair of the National Commission on Self Employed Women, through 18 states of the country, holding public hearings, taking evidence from the poor women on their work and life. We met and listened to these women working in fields, factories, mines, their homes, or on mountains, roads, shores, in downtown markets. What did we find? We found the growing need of women to find work and the enormous problems they face in the labour market : high fertility putting restrictions on their mobility, lack of transferable skills, lack of knowledge of markets and techniques and lack of access to assets, capital and tools.

This vulnerability is compounded by the fact that over time, traditional support systems are breaking down. More and more households are becoming assetless which means that not only it is more difficult for women to participate in economic activities but the family unit itself becomes more unstable. As a result, there are more women headed households than before. Forests and other free sources of consumption items and raw materials have become rarer. Women's low productivity, crude skills face increasing competition in the course of expanding trade. And it is these women — a vast majority of our country — who are holding up more than half the sky, yet they remain an invisible workforce.

After meeting these women, we also realised that women are better fighters against poverty than their men. They have more calculative, stable, futuristic strategies to deal with their own environment. Their courage to fight the wrath of nature, famines and floods is heroic. Everywhere in the country we found women were the most committed proponents of our future. Therefore, I would like to tell you that the future of this country is in the hands of the rural women of India. It is not a rhetoric, it is a fact that I state with knowledge and confidence, with a strong hope that you will always give full regard to these women while building the destiny of this country.

While building the destiny of new India, you will be working together with men as colleagues, as partners in life and in work. Man and woman live under one roof. To all appearance they may seem to live together, but in reality there is no togetherness or companionship in the right spirit. Once a father took his child to a zoo promising to show him the lamb sleeping with the lion. The boy saw only the lion in the cage. The father explained that the lamb was inside the stomach of the lion. This is the kind of relationship one sees often in our homes. There is no morality in such co-existence of the lion and the lamb, or the man and the woman.

So, with all earnestness, I would like to urge every girl here to build up her individuality. You may live with the young man you like, love him with all your heart and soul, make sacrifice for him when needed, but, on no account should your entire existence totally depend on him. Education has not been able, so far, to emancipate girls from this abject compelling dependence on man. In such case, your education, your citizenship are only ornamental. I strongly feel that why should a woman need a man to guard her safety and honour. She is capable to protect herself. Actually, both man and woman fear each other. The man will have to help her to shed her fear of him. Men are not wolves. Women will have to assure men that women are not seductress. Jointly you will have to build a society where both can enjoy safety and freedom, and can co-exist without exploiting each other. The basis of the man-woman relationship should be of mutual trust and affection and not fear or greed. A woman has to seek protection because she regards physical force as power. But physical force has never been the final arbiter of human destiny. A human excels not by physical power but by his or her superiority in the qualities of head and heart.

What is the women's prerogative? Obviously, her motherhood. Of course, there is no question about motherhood being the zenith of womanhood. But by motherhood we mean only that motherhood which is of her own wish, not the forced motherhood. Give up the helpless aspiration for 'Saubhagya' marriage or even motherhood. In a woman's life, her sole fulfilment need not be in marriage or motherhood. Life is a many splendoured thing. Stand up and equip yourself to embrace all, to serve all. Take control of your own life and body and go ahead to fulfil your goals which are far nobler and loftier.

In all revolutions, the revolutionary girls were never nervous in presence of their men cadre not the revolutionary boys looked upon their women cadre as objects of lust. They worked in comradeship for the advent of revolution. This is the kind of human relationship you will create while working together building your India, a peaceful, democratic motherland. ❑

NATIONAL INSTITUTE FOR THE ORTHOPAEDICALLY HANDICAPPED

(Under Ministry of Social Justice & Empowerment, Govt. of India)

B.T. Road, Bon-hooghly, Calcutta-700 090

ADMISSION NOTICE

Applications are invited from eligible candidates on prescribed form to undertake a JOINT ENTRANCE EXAMINATION for admission to First year Professional Courses in-1, Bachelor in Physiotherapy (BPT) 2 Bachelor in Occupational Therapy (BOT) 3. Bachelor in Prosthetics & Orthotics (BPO). Course Duration-3 years + 6 months internship.

The Joint Entrance Examination will be conducted at Bhubaneshwar, Calcutta, Dehradun, Delhi, Guwahati, Lucknow, Jaipur, Imphal, Secunderabad, Nagpur, Patna, on **18th June 2000** (Sunday).

The Examination date/venue can however be changed at the discretion of Director, NIOH, Calcutta.

A candidate must have passed 12th Class Examination under 10+2 system with five subjects or an equivalent examination with Physics, Chemistry, Biology/Mathematics and English securing 50% marks in PCB to join BPT and BOT courses, or 50% in PCB or PCM, for Bachelor in Prosthetics Orthotics courses (40% in case of SC, ST, PH, candidates in PCB/PCM as applicable) 15% for SC, 7.5% for ST and one seat for PH candidate in each course is reserve.

Candidates appearing in 12th Class examination under 10+2 system or equivalent in April/May 2000 whose result is likely to be declared before July-2000 are also eligible **A candidate should have attained or will attain the age of 17 (Seventeen) years and not more than 22 years on 31st December, 2000. No relaxation in age is admissible.**

The Prospectus-cum-Application Form may be obtained personally from 15th April-2000 onward from the National Institute for the Orthopaedically Handicapped, B.T Road, Bon-hooghly, Calcutta-700 090 or ALIMCO, 109/A, Shahid Nagar Bhubaneshwar or National Institute for the Mentally Handicapped, Manovikash Nagar, P.O. Secunderabad or Artificial Limbs Manufacturing Corporation of India, G T Road, Kanpur of Deep Shika Arya Samaj Building, Shradhanand Road, Ranchi, (Bihar) or Bhagwan Mahavir Viklang Sahayata Samity, S M S Hospital, Jaipur or Chetna, Sector-A, Aliganj Scheme, Lucknow or Deptt of Rehabilitation, RIMS, Imphal, Manipur or NIOH, Regional Centre, 116 Rajpur Road, Dehradun-248001 or Institute of the Physically Handicapped, 4, Vishnu Digamber Marg, New Delhi-110002 or Rehabilitation Council of India, 23A, Shivajee Marg, Nazafgarh Road, Nr Karampur Complex, New Delhi-15 and Dept. of PMR, PMCH, Patna against the Demand Draft of Rs 250/- for General Category and Rs. 200/- for SC/ST/PH (on production of self-attested copy of SC/ST/PH Certificate) The Demand Draft should be made in favour of **Director, NIOH payable at Calcutta.** Candidates those who want the prospectus-cum-Application Form by post should send demand draft alongwith a self-addressed stamped (equivalent to the value of Rs. 25/-) envelope of size 12 x 28 cms & a self-attested copy of SC/ST/PH Certificate (if applicable) to The Dy. Director (Tech.), National Institute for the Orthopaedically Handicapped, B.T. Road, Bon-hooghly, Calcutta-700090 The amount includes cost of prospectus and Examination Fee. Any postal delay will not be our responsibility

The application forms duly Completed along with necessary certificates as mentioned in Prospectus should reach to **Dy. Director (Tech.), National Institute for the Orthopaedically Handicapped, B.T. Road, Bon-hooghly, Calcutta-700 090, W.B. by 30th May 2000.**

visit us · http//www india-future.com/nioh may download the form/prospectus and send with required Demand Draft

Application received late will not be considered.

Dy. Director (Tech.)-cum-Chairman
Examination and Admissions

INDIAN ASSOCIATION FOR THE CULTIVATION OF SCIENCE

CALCUTTA 700 032

ANNOUNCEMENT

PROFESSOR S.R. PALIT MEMORIAL AWARD-2001

Nominations are invited for the award of Professor Santi Ranjan Palit Memorial Award for the year 2001.

The award of Rs. 10,000/- value was instituted in the year 1985 in memory of late Professor Shanti Ranjan Palit, a distinguished physical chemist and pioneer in Polymer Science who served Indian Association for the Cultivation of Science as a Professor of Physical Chemistry during 1947-1976. The award is given biennially by Indian Association for the Cultivation of Science (IACS) to distinguished scientists for outstanding research contribution made in India during the ten years preceding the year of award in the fields of Physical Chemistry and/or Polymer Science.

Nominations may be submitted by Vice Chancellors of Universities; Deans of Science, Engineering and Technology faculties of Universities, Institutes; Directors of IIT's and similar other institutions such as IISc, Bangalore; Directors of National, CSIR and Government laboratories; Heads of R & D organizations that are engaged in research in Physical Chemistry and/or Polymer Science; Presidents/Chairmen/Directors of INSA, ISRO, ONGC, BARC, TIFR etc., Presidents/Chief Executives of Registered Scientific Societies and the previous Palit awardees. Each such nomination shall be accompanied by a bio-data of the nominee along with a list of publication, highlights of the work carried out by the nominee and a critical assessment report (not more than 500 words) highlighting the importance and significance of the research contribution made by the nominee during the ten years preceding the year of the prize. Each nomination must be accompanied by a reprint, each of not more than 5 key publications of the nominee and a declaration/certificate that the work has been carried out in India.

The nominations signed by the sponsors should be marked *confidential* and sent by Registered A.D. post of the *Director, Indian Association for the Cultivation of Science, 2A&B, Raja S.C. Mullick Road, Jadavpur, Calcutta 700 032* latest by **30th June, 2000.**

Professor D. Mukherjee
Director

CAMPUS NEWS

Training Science Communicators

A three-day workshop on 'Training of Science Communicators for Enhancing Science Coverage in Mass Media' was recently organised at the Punjabi University Campus by the Department of Development of Punjabi in collaboration with the Punjab State Council for Science and Technology. Dr. Jasbir Singh Ahluwalia, Vice-Chancellor of the University, urged the science communicators to understand the needs, mental attitudes and level of understanding of the people and then make efforts to popularise science and technology among them by communicating in their regional language. Dr. Ahluwalia stressed that for effective communication one must have thorough understanding of the working of different media, science and the regional language. There is need to adopt modern communicative techniques to convey the meaningful and socially relevant information regarding new scientific discoveries and inventions which can prove helpful in improving the standard of living of the masses. he said that instead of being dogmatic there was urgent need to develop scientific temper in our speech and writings.

Dr. Kuldip Singh Dhir, Dean, Academic Affairs, Punjabi University, said that for effective communication one must involve the people in scientific activity. Ms. Neelam Gulati Sharma of the Punjab State Council for Science and Technology gave details of the Punjab government plans to popularise science among the people.

Prof. Kulwant Singh Grewal, Head, Department of Punjabi Development, speaking about the aims and objectives of the workshop lamented the paucity of science writers, especially in regional languages. Though the newspapers seemed to be inclined to devote more space regularly for science and technology and provide a variety of material, it was not feasible with the present lack of suitable writers to regularly generate authentic and quality material in desired forms. To fill this gap it was necessary to identify and encourage potentially good writers and provide them training to develop in them skills for science writing.

The steering committee of the symposium comprising eminent scientists recommended that as the elementary information concerning the vector fauna of the region of Punjab and their implications through different diseases was completely lacking, high priority be given to the monitoring of the fauna through systematic surveys. Accordingly, it was recommended to set up a nucleaus centre on Medical Entomology at the Department of Zoology, Punjabi University. Both the university and the state should provide infrastructure and other resources needed for the centre.

The proposed centre will undertake the study of fauna of vectors in the transmission of diseases and a study of the vector borne disease such as dengue, Japanese encephalitis and the problem of resistance in Malaria control. It will also frame policy issues concerning containment of these infections for which an advisory body including renowned scholars from all parts of the country be established to guide the scientific programme.

Web Technologies & Web Based Learning

The Internet/Intranet technologies are changing the way peope learn, work and live. More and more people are gaining access to the web, regardless of geographical, social or temporal differences. Now people are talking about virtual universities and border-less class rooms. Wide access to education, lifelong learning and universal educational support through web is becoming order of the day. Higher education must thus prepare people to use the new information technologies and to prepare themselves by means of these technologies, to make use of them in any profession and in any discipline of their choice.

Keeping in view the above that there is an immediate need to train the people involved at various levels in the field of education (Courseware designers, faculty, trainers, learners, IT professional, Government) who are desirous to learn developments in Web technologies related to Web Based learning,Centre for Development of Advanced Computing (CDAC) Hyderabad centre is organizing a one week training course on "Web Technologies and Web Based Learning" during 15-19 May 2000.

Course Aim

The course aims at providing the awareness and insights into the web technologies and web based learning in the context of trainers, administrators and courseware

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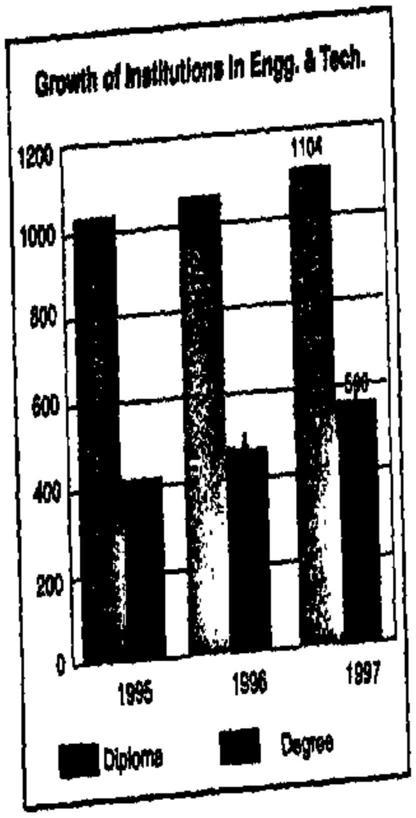
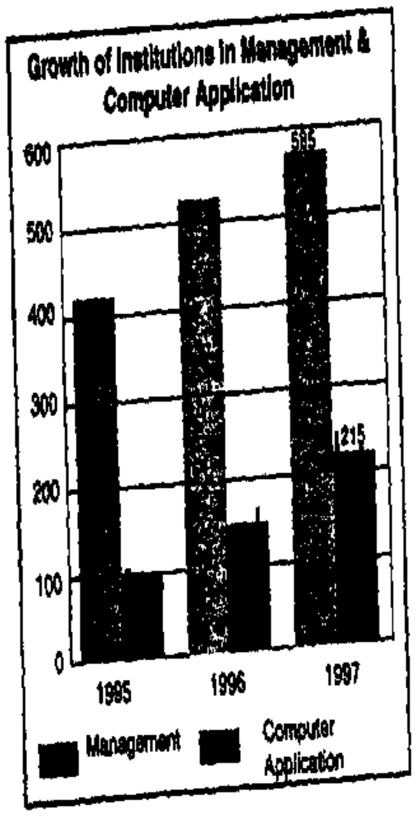
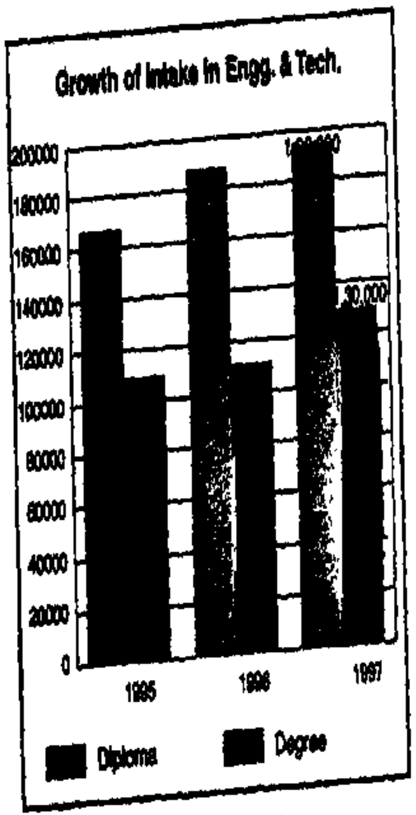
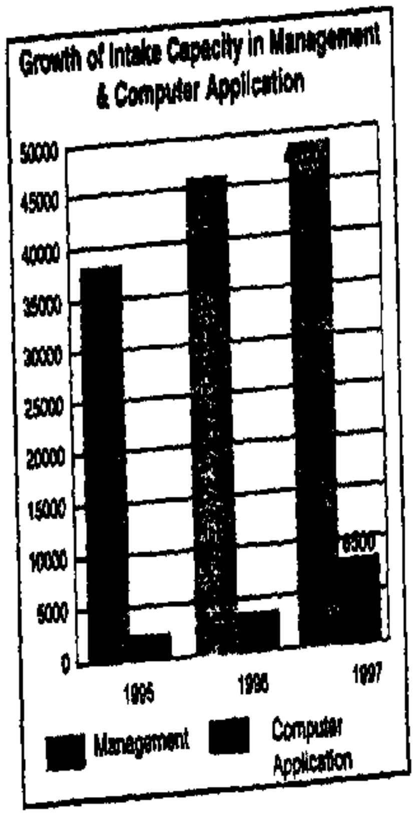
STATUS OF TECHNICAL CATION INSTITUTIONS

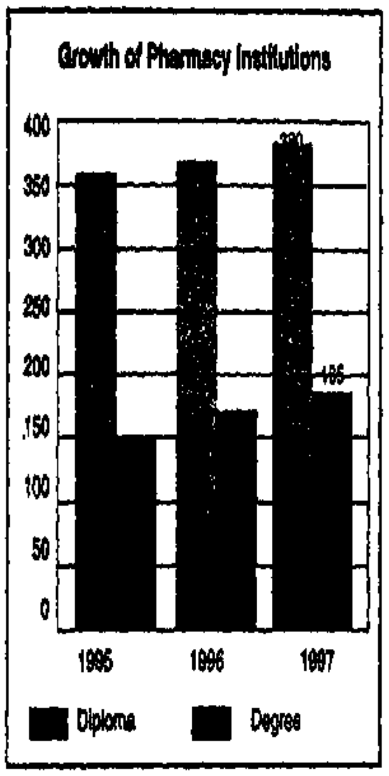


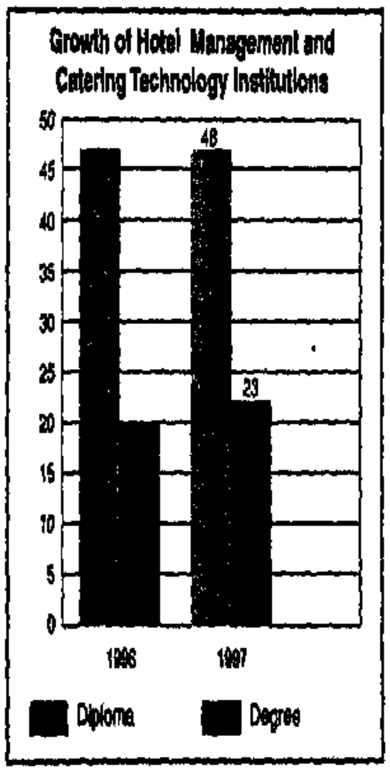


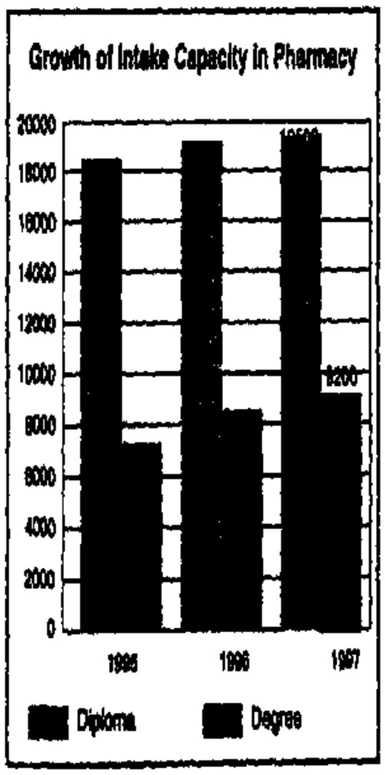


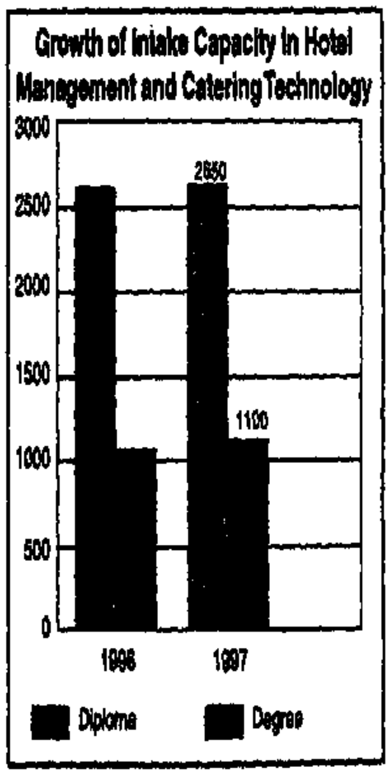


Source — *AICTE* Newsletter, June 1998.









designers who are desirous to use web as a medium for learning. The course would give confidence to use the web tools in the network environment. The course gives a glimpse of some of the popular web learning tools such as Web CT, Virtual-U etc.

Course Contents

Overview of Internet/ Intranet; HTML, DHTML, XML, Front page and Interdev, Apache server, HS server;

Web based learning — The need and Indian Perspective; Pedagogical aspects; Supplementary/Complementary/Comprehensive contexts; Global scenario of web learning, Introduction to Web learning tools; Case study on web learning tools; Web learning standards (ISM, IEEE's LTSM).

Who should attend

Trainers, instructors courseware designers, administrators who are desirous to learn web technologies and web based learning concepts IT professionals who are keen to understand the web learning concepts

Pre-requisite

Exposure to computers and use of Internet No programming experience is needed to attend this course.

For Further Information please contact: Dr. N. Sarath Chandra Babu, Centre Head & Programme Coordinator, C-DAC Hyderabad Operations, 2nd Floor, Delta Chambers Ameerpet, Hyderabad-500016. Tel : 3301331, Fax: 3301531, E-mail: wbl@cdach.ernet.in

Fellowships for Young Scientists

The Government of India has announced a scheme to back up bright science students with attractive fellowships during their studies. The fellowships are meant for students of class X, XII, BE/ B.Tech/ 2nd year MBBS/ BVSc/ BDS 2nd year.

The selection is highly competitive and would take into account academic excellence and aptitude for research. Each stream has its own selection procedure which includes a national level interview for final selection.

1) **Science** : Fellowship (120) will be given to those appearing at the 10th or 12th standard Board examinations in 2000, and securing a minimum of 75% marks in Science subjects.

The scheme called Kishore Vaigyanik Protsahan Yojana (KVPY) will be implemented by Indian Institute of Science, Bangalore. Each Board level fellowship carries an award of Rs. 2000 per month and a contingency fund of Rs. 4000 per annum during class 11 and 12. After Class 12 the award money will be raised to Rs. 3000 p.m. and the contingency fund to Rs. 6000 p.a. up to M.Sc.

2) **Engineering** : There are 25 fellowships for Engineering students. Those completing 2nd year BE/B.Tech in 2000 with first class or equivalent in the first year can apply for the fellowship, provided they show demonstrable interest in research.

Each fellowship carries Rs. 3000 p.m. and a contingency fund of Rs. 6000 p.a. up to completion of ME/M.Tech.

3) **Medicine** : There are 25 fellowships for medicos. Those completing 2nd year MBBS/BVSc/ BDS in 2000 with first class or equivalent in the first year can apply, provided they show a demonstrable interest in research. Each fellowship carries Rs. 3000 p.m. and a contingency fund of Rs. 6000 p.a. up to completion of MBBS/ BVSc/BDS.

Requests for application form and information brochure, accompanied by a self-addressed 26 x 12 cm envelope and a IPO/DD for Rs. 75 payable to "SID A/c KVPY" at Bangalore, should be sent to Kishore Vaigyanik Protsahan Yojana (KVPY), Indian Institute of Science, Bangalore-560 012.

The request for forms will be entertained up to May 15.

M.Sc. Neuroscience

National Institute of Mental Health and Neuro Sciences (Nimhans), Bangalore would offer a new postgraduate course in neuroscience with financial support from the centre, Department of Biotechnology (DBT) Secretary, Dr. Manju Sharma said.

The M.Sc. course in neuroscience is expected to commence from the next academic year, Dr. Sharma said at a function to launch "Brain awareness week 2000" in New Delhi. The course would be supported by National Brain Research Centre (NBRC), an autonomous body under the DBT.

The DBT secretary said the NBRC has already firmed up agreements with the National Institute of Mental Health (NIMH), in the United States, and Brain Science Centre (BSC) in Japan to undertake collaborative research on fundamental aspects of the brain.

A similar agreement is on the cards with the United Kingdom as well.

Meanwhile, Union Minister for Science and Technology, Dr. Murli Manohar Joshi launched a brain awareness week starting from today. "One of the major challenges facing scientists in the new millennium is to understand how the human brain works and what goes wrong when it is injured or diseased," Dr. Joshi said adding that the challenge is so enormous that it is often referred to as the last frontier in biology.

During the week, lectures and seminars will be organised in 10 cities including Bangalore, Chennai, Hyderabad and Cochin, to increase public awareness about brain-related disorders and the need for basic neuroscience research to understand brain function in health and disease.

It is estimated that 156 people in every 1,000 persons are suffering from a neurotic disorder in the world. According to the World Health Organisation (WHO), brain disorders are the major contributor to disability adjusted life year (DALY), a benchmark to assess time lost due to premature mortality and time lived with disability. It is said that among the ten top ranking diseases which contribute to disability, four are psychiatric disorders.

IIM(L) Convocation

The growth of Indian economy is still not as good as it should be. To make a significant dent in poverty, the economic growth rate should be over seven per cent.

Speaking on the occasion of the 14th convocation of the Indian Institute of Management (IIM), Lucknow, deputy chairman of the Planning Commission, Mr. K.C. Pant stressed the need for a balanced growth which could also generate employment.

Calling upon the IIM pass-outs to contribute in the nation-building, Mr. Pant said that to meet challenges in the 21st century, India would need managers who have a global vision. "We need managers who have ability to take risks and are prepared to work for a larger purpose", he said.

In his address, Chairman of IIM, Lucknow, Mr. Hari Shankar Singhania said that organisations with global vision would have to build global mind-frames. "Business schools can generate cultural awareness through exchange programmes, compulsory papers on cross-cultural issues and by inviting faculty members of other countries to India", he said.

He said that the IIM, Lucknow, had made a beginning in this direction by entering a global exchange programme with leading schools of France and Spain.

In his report IIM's Director, Dr. Pritam Singh said that the IIM had made allround progress in 1999-2000 session. The IIM launched fellow programme in management (FPM) and a project-based MBA programme with the University of Hull, United Kingdom. It also conducted training programmes for non-government organisations and organised a national seminar on education policy of UP. Dr. Singh gave details of the newly established Agriculture Management Centre (AMC) at the IIM.

Expressing satisfaction over the development of the institute. Dr. Singh said that a record number of 100 companies came to recruit IIM, Lucknow, students this year. "For the first time, all the 168 students got placement in mega companies in less than two days' he said.

State and Regional Autonomy

Jammu University recently organised a National Seminar on "State and Regional Autonomy."

The academicians discussed the issue of autonomy in Jammu and Kashmir with special reference to the reports of State Autonomy Committee and Regional Autonomy Committee.

Over 30 delegates from Jawaharlal Nehru University, Delhi University, Punjab University, Himachal Pradesh University, Guru Nanak Dev University, Indira Gandhi National Open University and Kashmir University participated in the seminar which was inaugurated by Chief Minister Farooq Abdullah.

The seminar had five working sessions dealing with various dimensions of the topic, besides the inaugural and valedictory sessions. The federal context of India formed the theme of the first session while four sessions dealt with the issues of state and regional autonomy and related topics.

Speaking on the occasion, Prof. R.R. Sharma, Vice-Chancellor, Jammu University, said right of self-determination had exhausted its scope and could not be applied to people who were not subjected to colonial rule. Firmly of the view that the construction of a new federal balance in India was necessary, the V-C said it was bound to contribute to the basic tenets of our Union. However, he added, the parameters of autonomy needed to be worked out with immense care and thoughtful construction.

Prof. Hari Om, Head, History department, Jammu University, said the autonomy document had created widespread resentment in

Jammu. Terming it as "reactionary", he alleged that the SAC report wanted to divide the people of the state. Prof. Hari Om said the only solution was total reorganisation of the state.

A number of speakers advocated the concept of total reorganisation of Jammu and Kashmir. They said the demand for autonomy by the state government was "unjustified" as the Centre had already given a special status to the state in the form of Article 370. They said Jammu should be made a separate state, Ladakh should be granted the status of a union territory and a separate homeland should be carved out in the Kashmir Valley for displaced Kashmiri Pandits.

Professor Riaz Punjabi of Jawaharlal Nehru University said exclusion of many regions in Jammu and Kashmir is leading to further alienation of the people residing there. He said such regions were not under-developed but "mal-developed" as the agendas for their development were hijacked by various political groups. He said the government should evolve some mechanism to address the problems of these people. "Without addressing the ethno-cultural composition of these groups, you cannot dismiss the RAC," he said. Prof. Punjabi also advocated Panchayati Raj as a key to development. (Unfortunately, panchayat elections have not been conducted in the state for the past 22 years).

Presenting his paper on "Asymmetrical and multi-level Federalism in Jammu and Kashmir" with reference to SAC and RAC, Prof Balveer Arora, from Centre of Political Studies, JNU, said while autonomy is undoubtedly a catchy slogan with popular appeal and mobilisation potential, it is asymmetry which should engage the attention of the political class as an institutional device. He said if the working of these twin concepts of asymmetrical federalism and multi-level federalism in their application to Jammu and Kashmir is to be reviewed, then one has to see to the areas of dissatisfaction. Rolling back the Indian Constitution can only be discussed meaningfully and justified if specific areas of malfunctioning are identified, he added. Besides, sub-state autonomy experiments and proposals have to be evaluated against the yardstick of whether they enhance or diminish multi-level federalism, said Prof. Arora who is also honorary Director, Northern Regional Centre of the Indian Council of Social Science Research, New Delhi.

Rejecting government's recommendations on regional autonomy, Dr. S.C. Sharma, Reader, History department, Jammu University, said these recommendations are neither logical nor comprehensive.

If the state government is really serious to grant regional autonomy to Jammu division, then it should appoint a new committee under the chairmanship of a retired or sitting High Court judge who has never visited Jammu and Kashmir and follow its recommendations in letter and spirit. Then they would not only do justice to Jammu region but would also appear to be just, he felt.

Expressing similar views, Dr. Yog Raj Sharma of political science department, said the demand for state autonomy has to cope with the demand for autonomy of subregions within the state. He suggested that the state should provide autonomy to sub-regional socio-cultural groups within the state, should remove regional imbalances and should give top priority to tackle problems of minorities. Besides, the process of democratic decentralisation ought to be accelerated to strengthen Panchayati Raj institutions and municipal bodies to take the benefit of autonomy to the common man.

Seminar on Community Colleges

The community college was a social need and an alternative to regular colleges and to provide training programme to suit the economic, social and financial needs of the thousands of "not-so-privilaged" members of the community who could not afford higher education in regular colleges, said Rev. Dr. Xavier Alphones, Director, Madras Centre for Research and Development Chennai.

Inaugurating a seminar on community colleges as an alternative and innovative system of education, organised by the ASA Community College of Tiruchi, he said it was unfortunate that every year lakhs of graduates and postgraduates were coming out, to add to the list of over 25 lakh educated un-employed already registered in the employment exchanges in the State.

The community colleges, with special syllabi tailored to meet the needs of the local community, could train sufficient number of students in the locality who will be in a position to fill up the needs of the local community.

He said the community college concept was fast catching up in the State, and over 80 per cent of the community colleges in the country were in Tamil Nadu. The community colleges offered within a short period, life coping skills, computer training, training in industrial units, and also in the health service sector. Educated women found the community colleges extremely useful to acquire special skills for supplementing the income of the family. The committee on community colleges had submitted to the Government and the Community Colleges Development Agency a report on the potential and guidelines for establishing more community colleges in the State. Dr. Alphones said community colleges had to fulfil the aspirations of the youth and society, and should not degenerate into commercial institutions.

Mr. S. Devaraj, Director, ASA Community College, Tiruchi and District Convener for community colleges council, said community colleges could specialise in providing simple management development courses for small sector and tiny sector, rural development, women development, hospital, health and medical technology courses, computer software, physical education and rehabilitation courses, Industry-oriented technical courses etc. Prof. M. Ravishankar, Principal, Jenney's Academy, said the scope for youngsters in hospitality and tourism fields was tremendous, especially for women candidates.

Dr. S. Ramji, Medical Superintendent, Seahorse Hospital, said demand for nursing assistants for elderly people, trained hands for the sophisticated machines and instruments in hospitals etc was very high.

MGR Medical Varsity Convocation

Medical education has been an unfortunate victim of gross apathy and indifference of the Government, said Prof. Hari Gautam, Chairman, University Grants Commission.

"Even the eighth plan recommendations have been flouted by many state governments permitting mushrooming growth of medical institutions in different states of the country."

Restructuring of educational institutions and the contents of the curricula is needed now, as the educational system in the country, including that of medical education, was in danger of "soon becoming irrelevant".

"Equally responsible, if not more, is the conduct of the medical profession, which has not raised even its little finger. There is no glimmer of hope in the near future, unless the entire profession takes it up in right earnest," he said in his address at the 10th convocation of the Tamil Nadu Dr. MGR Medical University at Chennai.

In modern medical education, the initial syllabus was brought from the London University. It had changed a bit here and there, but there had never been an attempt to do some introspection for nearly a century and a half. "Untaught students, non-teaching teachers and non-performing institutions are unfortunately not uncommon both in private and Government sectors," he said.

Mushrooming growth of universities and college should be checked and a policy decision on opening education institutions should be drawn up, Prof. Hari Gautam said.

A total of 7398 candidates were awarded degrees and diplomas in various medical, dental, para medical courses and Indian medicine.

The Governor, Ms. Fathima Beevi, presided and administered the oath to the candidates. Mr. N. Veerasami, Health Minister and Pro-Chancellor, participated. The Honorary degree of Doctor of Science (honoris causa) was conferred on Prof. Sundaram Subramanian, "a senior microbiologist, an exemplary teacher and an able administrator," Prof. Sam G.P. Moses, "a judicious combination of a rare and gifted teacher, a keen and observant clinician, a briliant and astute academician and silver-tongued orator," and on Prof. Hari Gautam, "who successfully established the speciality of cardio-thoracic surgery in rural and semi urban areas of the country" and who was "the first medical man to serve as the Vice-Chancellor of the Banaras Hindu University."

In his report, the University Vice-Chancellor, Dr. K. Ananda Kannan, said that steps were being taken to tap avenues available in information technology to disseminate knowledge.

Seminar on Teacher Accountability

A two-day National Seminar on Teacher Accountability and Teacher Organisations was recently organised at the C.R. College of Education, Rohtak (Haryana). The UGC-NCTE supported Seminar was inaugurated by Dr. K.C. Banger, Vice Chancellor, Guru Jambheswar University, Hisar and presided over by Shri Raj Singh Nandal. Dr. Banger spoke of the role of Teacher Organisations and Teachers' Accountability. The fact that all commissions on education in India after independence have stressed the need of teacher accountability vis-a-vis classroom teaching, guiding students and the immensely moral obligation of being the role model for students, the teachers cannot abjure their principal responsibility of being socially responsive. The ethical part of accountability should never be ignored, he added. Earlier, Dr. S.K. Mangal, Principal of CR College of Education welcomed the participants.

A panel discussion was organized as the first session of the Seminar. The panelists were Prof. J.N. Kapur, Prof. R.P. Singh and Prof. S.S. Rathee (DUTA), which was compered by Dr. Kapil Vardhan. Prof. Kapur, who talked of collective accountability of the teachers', the students' and the teachers' and the students' unions, initiated the discussion. After all, it should be clear that education *per se* should be responsive to the society and teachers have to be accountable to students and their welfare. Prof. Singh raised the issue that teachers themselves were responsible for the social perception that they care more for money than the welfare of the students by flunking classes, politicizing academic issues and receiving favours from politicians by making compromises on moral issues. Prof. S.S. Rathee, President DUTA pointed out that DUTA not only protects the rights of the teachers but favours objective, merit-based selections and would not mind disincentives being given wherever absolutely necessary.

Dr. G.D. Sharma, former Secretary UGC, addressed the seminar on the issue of teacher accountability over all other types of accountabilities. "For a person to become a teacher is a matter of luck because here one can serve society, be free to think and keep learning constantly. It is to say briefly teaching is both a mission as well as a profession," he said.

Seminar papers were presented in three groups spread over five sessions. Stimulating discussions followed the presentations.

The seminar adopted the following resolutions :

1. The teachers should be encouraged to adopt their own code of ethics.
2. The teachers may be reminded by their own associations of the moral responsibility they have towards their students.
3. Accountability is part of one's moral obligation and this fact should be at the back of all teacher actions.

The seminar was attended by over 70 participants representing U.P., Delhi, Rajasthan, M.P., Karnataka, H.P., and Punjab besides Haryana. A special souvenir was also brought out by the organizers. The highlight of the Seminar was the adoption of the code of ethics for teachers.

News from Agricultural Universities

Training Courses in Poultry Science

The Central Avian Research Institute, (ICAR), Izatnagar, a premier institute in the country for research and training in Poultry Science, will offer the following training courses to technical personnel working in the State/ Central Animal Husbandry Department/Agricultural Universities/Public and Private Sector organizations during the year 2000-2001.

1. Poultry Nutrition & Feeding — 17-26 July, 2000; 2. Modern Layer Farm Management — 2-11 Aug., 2000; 3. Modern Broiler Farm Management — 11-20 Sept., 2000; 4. Modern Quail Production Management — 10-20, Oct., 2000; 5. Modern Turkey Production Management — 13-22 Nov., 2000; 6. Poultry Processing & Production Management — 11-20 Dec., 2000; 7. Poultry Disease Control & Bio-security — 15-24 Jan., 2001; and 8. Modern Poultry Hatchery Management — 12-21 Feb., 2001.

Eligibility : Graduation in Vety./Agril./AS/Biology with practical experience in poultry. **Course Fee** : Rs. 2500/-.

Further details may be had from Dr. A.K. Dev Roy, Head, Postgraduation Education & Training Section, Central Avian Research Institute Izatnagar-243 122, Bareilly (UP).

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News from UGC

Countrywide Classroom Programme

Between 24th April to 30th April, 2000 the following schedule of telecast on higher education through INSAT-1D under the auspices of the University Grants Commission will be observed. The programmes are telecast on the Doordarshan's National Network from 9.30 to 10.00 a.m. every day except on Saturdays & Sundays. These programmes are also telecast on Doordarshan's National Network from 6.00 to 6.30 a.m. on all days of the week.

24.4.2000

"The Saga of Life-IV"

"Ecstasy in Music-I"

"Vasundhara : Dal Lake"

25.4.2000

"Question Time-123"

"Minerals — Their Role in Modern Civilization"

"Ecstasy in Music-II"

"Touch of Genius"

26.4.2000

"Panasa — The Mega Fruit"

"Learning First Aid-I"

"Music Motifs of Pena"

"A Story Inside the Shell"

27.4.2000

"मामा बालेश्वर दयाल : भीलों के मसीहा"

"गुनगुनाती सरिता"

"Moods and Melodies"

28.4.2000

"Don't Worry Be Happy-I"

"Integrated Child Development Services-III"

"History of Banking"

29.4.2000

"मारवाड की पाग पागड़ियां एक जीवंत विरासत"

"Pompeii"

30.4.2000

"चल मन जाए अपने देश"

"Touch of Genius"

News from Abroad

Lectureships in Science and Sustainable Development

The objective of the Lectureship Programme is to provide those associated with scientific and other appropriate institutions in developing countries with the opportunity to establish and enhance collaboration with colleagues in all fields of science, technology and key areas of environment and development. Within this Programme, prospective host institutions can invite eminent experts in science, technology and sustainable development, to lecture and hold discussions in their countries. Lecturers and hosting institutions will be expected to provide comprehensive reports on completion of the visits.

Institutions in developing countries wishing to invite a Lecturer under this Programme are requested to give the name of persons who might be invited to lecture. As the programme is striving towards providing equal opportunities, nominations for women will be particularly welcomed.

The travel (round-trip, economy fare) expenses of lecturers will be borne by the Programme, while host institutions in developing countries will be expected to cover all local expenses as well as to make local arrangements. Under normal conditions, no more than one lectureship per country per year will be approved. Experts who are planning to visit a developing country for purposes other than those relating to this Programme may be requested to give lectures at no financial cost to the Programe.

The last date for receiving requests is 30 June and 31 December of each year.

Further details may be had from : The Third World Academy of Sciences (TWAS) C/o The Abdus Salam Centre for Theoretical Physics (ICTP) Strada Costiera 11, 34014 Trieste, Italy. Phone : (+39-040) 2240-387 - Fax : (+39-040)224559, E-Mail: twas@ictp.trieste.it

BHARATI VIDYAPEETH

(DEEMED UNIVERSITY),

L. B. S. Marg , Pune - 411 030.

Applications are invited from eligible candidates for the entrance tests and for subsequent admissions to the following teaching programmes. The eligibility conditions, the dates and time of the tests and other information are given below.

1. **M .D. Ayurved in Siddhant and Darshan, Rachana Sharir and Dravyaguna** - 3 years **Eligibility** : Graduate in Ayurved from any CCIM recognised College / University and should have completed rotating internship.
2. **B. Sc. (Nursing)** - recognised by Indian Nursing Council. 4 + 1 years **Eligibility** : HSC or equivalent examination with atleast 50 % marks in Physics, Chemistry, Biology and English taken together.
3. **Bachelor of Optometry (B. Optom.)** - 3 + 1 years . **Eligibility** : HSC or equivalent examination with English, Physics, Chemistry and Biology or Mathematics with atleast 50 % marks taken together. Candidates with two year Diploma in Optometry after 12th can be admitted to the 3rd Year.
4. **Bachelor of Information Technology (B. I. T.)** - 3 years **Eligibility** : HSC or equivalent examination with Physics, Chemistry, Mathematics and English with atleast 50 % marks in Physics and Mathematics taken together or with three year Diploma in Computer Science / Industrial Electronics .
5. **Bachelor of Computer Science (B. C. S.)** - 3 years **Eligibility** : HSC or equivalent examination with English , physics, Chemistry, Mathematics or Computer Science
6. **Master of Business Studies (M. B. S.)** - (equivalent to MBA) 2 Years **Eligibility : Graduate** of any recognised University with atleast 50 % marks
7. **MBBS / BDS / BAMS / BHMS / and MD / M.S .** : The process of admission to the common entrance tests is going on. For details contact the Registrar.
8. **M. Sc. (Non Medical) Anatomy , Physiology , Biochemistry , Pharmacology and Microbiology , DNB and DMLT** - for details write to the Registrar before 25 / 7 / 2000

Dates and Time of Entrance Test.

M. D. Ayurved : 11 th July, 2000 at 3 00 p m. in our College of Ayurved at Katraj - Dhankwadi, Pune - 411 043 Tel No. (020) 573954.

B. Sc. (Nursing) : 20 th June, 2000 at 10 00 a m in our College of Nursing at Katraj - Dhankawadi, Pune- 411 043 Tel.No.(020) 572496.

B. Optom. :19 th July, 2000 at 11.30 a m. in our Medical College, Katraj -Dhankwadi, Pune- 411 043 Tel.No. (020) 573226.

B. I. T. : 18 th June, 2000 at 11.30 a.m. in our Yashwantrao Mohite College of Arts, Science and Commerce, Erandwane. Pune -411 038 Tel. No (020) 543 33 83

B. C. S : 30 th June, 2000 at 11.00 a.m in our Yashwantrao Mohite College, Pune - 411 038.

M. B. S : 11 th and 12 th June 2000, at 10 a.m. in our Y. C Institute of Social Science Studies and Research, Erandwane, Pune - 411 038, Tel No (020) 544 8520

MBBS / BDS / BAMS / BHMS : 24 th May, 2000 at 11.00.a.m. at New Delhi, Mumbai, Pune , Baroda, Hyderabad and Indore

M.D / MS : 12 th July 2000, at 11.00 a.m. our Medical College at Pune

	M.D. (Ayurved)	B.Sc. (Nursing)	B.Optom.	B. I.T.	B. C. S.	MBS
Price of Brochure	Rs.300/-	Rs.150/-	Rs.500/-	Rs.400/-	Rs.400/ -	Rs.400/ -
(add Rs. 50 /- if by post)			**(Including Test Fee)**			
Test fee	Rs.700/-	Rs.200/-				
Last date of submission of Application forms						
a. Without late fee	26.6.2000	5.6.2000	30.6.2000	1.6.2000	16.6.2000	1.6.2000
b. with late fee	1.7.2000	12.6.2000	7.7.2000	10.6.2000	20.6.2000	5.6.2000

Information brochure and application form can be had from the respective Colleges and the University Office. Tel.No.(020) 4331317 / 4335701.

Registrar

BOOK REVIEW

A Valuable Addition

Asok Sarkar*

N.B. Biswas. Curriculum Studies : A model for SAARC countries. Delhi, Indian Publishers Distributors, 1999. Pp. XII+239. Rs. 450/-.

Primary education is an appendage of social change. It induces principle of equality, elevates educational and social mobility, dignifies social concern and civic responsibility, expands economic opportunity and inculcates cultural as well as moral values. To fulfil the goal of such education and to maintain its quality, formulation of appropriate curriculum is an indispensable measure. Curriculum is an academic investment made in order to cater to the needs of the society and the individual child. If the content experiences of the curriculum equip the child for adapting to change, to the unknown, then a majority of the people can contribute to the development process.

The book under review is an attempt to study curriculum for primary education in SAARC countries. India, Pakistan, Bangladesh, Sri Lanka, Nepal, Bhutan and Maldives have been considered in this regard. Special focus and attention is given on Bangladesh. The study aims, to evaluate the primary education curriculum in Bangladesh, to ascertain the status of implementation of curriculum, to understand the problems of implementation of the same etc. Study report is made based on research and provided with scientific methodology. It is presented in nine chapters with adequate references and bibliography. All the chapters are in logical sequence. Good flow of ideas, simple presentation, clarity with field experience as and when necessary, have improved quality of the book.

Data, to conduct the study, were collected from secondary as well as primary sources. Basic documents such as, the Constitution of the People's Republic of Bangladesh, the First Five Year Plan (1973-1978) of the People's Republic of Bangladesh, Report of the Bangladesh National Education Commission (NEC) (1974), Report of the NationalCurriculum and Syllabus Committee (NESC) (December, 1976) of Bangladesh, Report of the Bangladesh National Education Advisory Council (NEAC) (February, 1979), Official Despatches of the Government of the People's Republic of Bangladesh, Statistical Profiles of Educa-

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PHOTO

1. Name of the Candidate (Surname First) ....
2. Father's Name ....
3. Address for Correspondence ....
4. (i) Qualifying Exam .... (iv) Maximum Marks..................
   (ii) Year of Passing .... (v) Marks Obtained ....
   (iii) University ....
5. D.D. No. .... Date .... Amount ....
6. ATMA or Equivalent Merit Score ....
   (Please attach the Marksheet)

Signature of the Applicant

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Swift/2000

Department of Social Work, Assam University, Silchar-788 001.

tion in Bangladesh, Second Five Year Plan of Bangladesh (Draft) 1980-85 and Statistical Yearbook of Bangladesh (1980) were explored as secondary data. These documents helped the author understand the socio-historical background of curriculum. For primary data, a survey was conducted in Dhaka division of Bangladesh among one hundred primary schools and 478 teachers were taken as sample. In order to select schools, five districts of Dhaka division were considered, such as Dhaka, Mymensing, Faridpur, Jamalpur and Tangial, which comprised of 48, 34, 26, 12, and 10 *Thanas* respectively. 3, 3, 2, 1, and 1 *thanas* respectively were selected on random basis from the above mentioned five districts. Thereafter, lists of all the primary schools of selected *thanas* were made with the help of T.E.O. and ten schools were randomly selected from each list. Questionnaire, School Information Schedule, Problem checklist and Interview Schedule were used to carry out the survey.

Data, under the study, were analysed separately for different types of items. Multiple choice and Yes/No type questions have been analysed in terms of frequency of the respondents agreement or disagreement. The frequency was further converted into percentages. Supply type responses were recorded in a table for all respondents and open end type items were interpreted descriptively. Each item of the check list were given appropriate weightage. For instance, Always : 2, Sometimes : 1, Not at All : 0. After scoring each item, summated scores had to be determined for each of the six areas of check list to find out the relative position in terms of problems faced by the teachers.

Study found that the objectives of the primary education highlighted by NCSC, NCERT and UNESCO were similar in character but different in perspective. All the three sources emphasized the objectives of imparting values. However, NCSC considered religious education but other two sources did not provide any scope. Work experience and vocational skills had been specified in NCSC and NCERT documents whereas UNESCO ignored the same. As far as curriculum content and material was concerned, there was a gap between the recommendations of NEC and NCSC. NCSC introduced English, Religious Education and Integrated Environmental Studies but NEC remained silent in this regard. NCSC felt the need of writing textbook in spoken Bengali and a uniform spelling should be maintained. Infact, a number of discrepancies were observed with regard to spelling in the mother tongue textbook. Study explored the problems involved in implementing the curriculum, such as, inadequate physical facilities, rigid school time table, non-availability of appropriate teaching aids, over burden with respect to class room teaching, lack of community support, unsuitable environment, inappropriate teacher training programme, inappropriate evaluation technique, etc.

On the whole, this book is an important piece and valuable addition in the field of curriculum studies. Researchers, academicians and policy makers will find the work lucid, interesting and meaningful. The basic query occurred in the study and outcome substantiated by the facts call for a re-examination of primary education syllabus in a specific socio-cultural environment. ❑

UNIVERSITY OF PUNE

Admission Notice for M.Sc. Botany

Entrance Examination for admission to M.Sc (Botany) at the Department of Botany, University of Pune, Pune 411 007, for academic year 2000-2001 will be held on **Friday, 9th June 2000.**

Reservation of seats to SC/ST/DT/NT/OBC (50% as per Govt. Resolution). For application form and other details contact Office of the Department of Botany, from **28th April, 2000 to 25th May, 2000,** during office hours.

For request of form by Registered Post, a self addressed and stamped (Rs. 15/-) envelope along with IPO/DD of Rs. 250/- (Rs. 200/- for reserve category) drawn in favour of The Registrar, University of Pune, should be posted to The Head, Department of Botany, University of Pune, Pune-411 007.

Advt. No. : 14
Date : 6/4/2000

V. S. Pol
Offg. Registrar

THESES OF THE MONTH

A list of doctoral theses accepted by Indian Universities (January-February, 2000)

AGRICULTURAL & VETERINARY SCIENCES

Horticulture

1. Badgujar, Chintamanrao Dodhu. **Exploitation of gynoecy in cucumber (Cucumis sativus L).** (Dr T A More), Department of Horticulture, Mahatma Phule Krishi Vidyapeeth, Rahuri.
2. Pathare, Sudhakar Bhanudas. **Genetical studies for yield, powdery mildew resistance and fruit rot resistance in chilli (Capsicum annum L).** (Dr K E Lawande), Department of Horticulture, Mahatma Phule Krishi Vidyapeeth, Rahuri.
3. Shakuntla Devi. **Response of Broccoli (Brassica oleracea L.Var. italica planck).** (Dr Jagmohan Kumar), Department of Vegetable Science, Himachal Pradesh Krishi Vishwavidyalaya, Palampur.
4. Tambe, Tukaram Baburac. **Rootstock studies in grapes (Vitis species).** (Dr K E Lawande), Department of Horticulture, Mahatma Phule Krishi Vidyapeeth, Rahuri.

Plant Breeding

1. Gahukar, Santosh Janardhan. **Isolation of mutants resistant to biotic and abiotic stresses using biotechnological techniques in sugarcane(Saccharum officiarum L).** (Dr N D Jambhale), Department of Plant Breeding, Mahatma Phule Krishi Vidyapeeth, Rahuri.

BIOLOGICAL SCIENCES

Botany

1 Dansena, Yashwant Kumar. **Litter production, weight loss and forest floor nutrient dynamics : Thermal regulation and air purification studies in man made forest of Raigarh Forest Range.** (Dr A K Girolkar), Department of Botany, Guru Ghasidas Vishwavidyalaya, Bilaspur.

2. Karikal, Latadevi **Physiological studies in Mulberrry.** (Dr G R Naik), Department of Botany, Gulbarga University, Gulbarga.

3 Parekh, Piyush Anantray. **Biomass and net production of herbaceous layer in tropical dry deciduous forest.** (Dr B R Pandit), Department of Botany, Bhavnagar University, Bhavnagar.

4. Pavan Kumar, G. **Callus culture and biotransformation studies on Diosgenin production from some species of Dioscorea L.** (Prof M V Subba Rao), Department of Botany, Andhra University, Waltair.

5. Pujari, Shkuntala. **Effect of heavy metals on hapalosiphom stuhlmannii hieron and spirulina subsala 40308.** (Dr S B Angadi), Department of Botany, Gulbarga University, Gulbarga.

6. Santhoshlal P S. **Genetical and transformation studies in rice (Oryza sativa Linn).** (Dr K Pavithran), Department of Botany, University of Calicut, Calicut.

7 Sarma, Bharati. **Influence of plant growth regulators on in vitro propagation of aerides oxcymbidiums and dedrobiums and the establishment of the plantlets under natural conditions.** (Prof C M Sharma), Department of Botany, Gauhati University, Guwahati.

8. Sidharthan, M. **Studies on phytoplankton of the cooling water system of Visakha Refinery.** (Prof M Umamaheswara Rao), Department of Botany, Andhra University, Waltair.

9. Srinivasa Rao, A. **Ecological and callus induction experiments on sargassum polycystum C Agardh and laboratory growth : Studies on some intertidal algae.** (Prof M Uumamaheswara Rao), Department of Botany, Andhra University, Waltair.

10. Subbaraya Sresty, T V. **Physiological and biochemical responses of germinating seeds of pigeonpea (Cajanus cajan L) mills paugh to zinc and nickel stresses.** (Prof K Madhav Rao), Department of Botany, Andhra University, Waltair.

Microbiology

1. Aladharthi, B Y. **Studies on the production of ethanol using non-conventional agro-based substrates.** (Dr Y M Jayaraj), Department of Microbiology, Gulbarga University, Gulbarga.
2. Gandhi, Dipak Manilal. **Various investigations in the differential diagnosis of human diseases.** (Dr Y A Shelat), Department of Microbiology, Bhavnagar University, Bhavnagar

Zoology

1. Joseph, Johny. **Impact of mangroves on the productivity of aquatic ecosystem in an estuary.** (Dr S Raja Gopalan Nair), Department of Zoology, University of Calicut, Calicut.
2. Ranjini, K R. **Studies on the digestive system of Iphita limbata stal Phyrrhocoridae : Heteroptera).** (Dr U V K Muhamed), Department of Zoology, University of Calicut, Calicut.
3. Sai Jyothi, U. **Monogenean and digenean parasites of carangids and pomerets of Visakhapatnam Coast, Bay of Bengal.** (Prof G Gnanamani), Department of Zoology, Andhra University, Waltair.
4. Satyavathi, Ch. **Studies on lead toxicity in postlarvae of Penaeus indicus (H Milne Edwards).** (Dr Y Prabhakara Rao), Department of Zoology, Andhra University, Waltair.
5. Shylaja Kumari, P. **Neurohormonal regulation of metabolism in the paddy pest Spondoptera mauritia boisd (Noctuidae:Lepidoptera).** (Dr M Gokuldas), Department of Zoology, University of Calicut, Calicut.
6. Vasanth Kumar, B. **Limnology of Bheema River.** (Dr K Vijaya Kumar), Department of Zoology, Gulbarga University, Gulbarga.

EARTH SYSTEM SCIENCES

Environmental Science

1. Aruna Kumari, M. **Present status of biodiversity in Eastern Ghats forests of Parvathipuram Gummalakshmipuram and Kurupam Mandal areas of Vizianagaram District of Northern Andhra Pradesh.** (Prof M Subbarao), Department of Environmental Science, Andhra University, Waltair.
2. Maikhuri, Jagdamba Prasad. **Spermicides studies on mechanism of their action.** (Dr B S Setty and Prof M Athar). Department of Environemental Science, Jamia Hamdard, New Delhi.
3. Ramana Raju, E V. **Geo-Eco-strategies of land-use planning in Jharia Coalfield, Bihar, using remote sensing methods.** (Dr Rekha Ghosh and Dr P K De), Department of Environmental Science, Indian School of Mines, Dhanbad.

Geology

1. Modhi, Jonali. **Petrology and structure of the precambrian**

rocks around Changsari and Agyathuri, Kamrup District, Assam. (Dr Mohd Maswood and Dr K P Sarma), Department of Geology, Gauhati University, Guwahati.

Geophysics

1. Khan, Prosanta Kumar. **Evolving trends of seismicity in India and its neighbourhood.** (Prof R K S Chouhan), Department of Geophysics, Indian School of Mines, Dhanbad.

Marine Science

1. Antony, Geetha. **Studies on the pelagic shrimps (Sergestidae:Genus Lucifer) from the seas around Indias.** (Dr A Antony), Department of Marine Sciences, Cochin University of Science and Technology, Kochi.

ENGINEERING SCIENCES

Biotechnology

1. Varshney, Anushri. **A modified cost efficient scheme for in vitro bulblet formations in Lilium.** (Prof P S Srivastava), Department of Biotechnology, Jamia Hamdard, New Delhi

Computer Science

1. Malik, Gajala Mumtaz. **Reliability attributes of computers and their management.** (Dr G P Chhlotra), Department of Computer Science, Guru Ghasidas Vishwavidyalaya, Bilaspur.

Electronics Engineering

1. Katiyal, Sumant. **Real time and knowledge based systems : Urological diagnosis.** (Dr P K Chande), Department of Electronics Engineering, Devi Ahilya Vishwavidyalaya, Indore.

Mechanical Engineering

1. Binay Kumar. **Optimization of maintenance policy for a fleet of earthmoving machines.** (Prof A K Basu and Dr M Chakraborty), Department of Mechanical Engineering, Indian School of Mines, Dhanbad.

Mineral Engineering

1. Roy, Jalpana. **Development of some new collecting reagents for fine particle processing.** (Prof P Bandopadhyay), Department of Mineral Engineering, Indian School of Mines, Dhanbad.
2. Sama, Jugal Kishore. **Studis on separation of constitutents from multicomponent natural products such as turpentine oil.** (Prof P Bandopadhyay and Dr J S Chawla), Department of Mineral Engineering, Indian School of Mines, Dhanbad.

Mining Engineering

1. Rajmeny, Pramod Kumar. **Development of empirical models predicting rock mass failure around open stopes and their application in extracting marginal grade deposits.** (Prof U K Singh and Mr B K P Sinha), Department of Mining Engineering, Indian School of Mines, Dhanbad.

Petroleum Engineering

1. Gupta, Anand. **Dynamic evaluation of gas lift valve performance on static and dynamic gas lift valve test facility using nitrogen/air as model gas.** (Prof N Choudhary and Dr Ramashis Rai), Department of Petroleum Engineering, Indian School of Mines, Dhanbad.

MATHEMATICAL SCIENCES

Mathematics

1. Sharma, Sanjeev. **Some problems in elastic plastic and creep transition for non-homogeneous materials.** Department of Mathematics, Himachal Pradesh University, Shimla.

Statistics

1. Philip, Jose. **Some contributions to the theory of construction of designs.** (Dr Shakti Banerjee), Department of Statistics, Devi Ahilya Vishwavidyalaya, Indore.

MEDICAL SCIENCES

Pharmaceutical Science

1. Dhall, Vipan. **Liposomal targeted delivery systems of some antineoplastic and radiopharmaceutical agents.** (Prof R K Khar), Department of Pharmaceutics, Jamia Hamdard, New Delhi.
2. Javed Ali. **Development and evaluation of mucoadhesive drug delivery system for some drugs.** (Prof R K Khar), Department of Pharmaceutics, Jamia Hamdard, New Delhi.
3. Sagar, Bhanu Pratap Singh. **Tissue culture studies on a medicinal plant.** (Prof Rasheeduz Zafar), Department of Pharmaceutical Science, Jamia Hamdard, New Delhi.

PHYSICAL SCIENCES

Chemistry

1. Banerjee, Kamalika. **Thermo dynamic and hydrodynamic interaction in binary liquid mixtures.** (Dr T M Aminabhavi), Department of Chemistry, Karnatak University, Dharwad.
2. Chandrasekhar, K B. **Studies in the Chemistry of metal pollutants: Spectrophotometric determination of Pb(II), Cd(II), Ni(II) and Cu(II) using oxime-hydrazones.** (Dr K Hussain Reddy), Department of Chemistry, Sri Krishnadevaraya University, Anantapur.
3. Kembhavi, Mohammadsaleem Rasoolsab **Kinetics and mechanism of a few redox reactions.** (Dr S T Nandibewoor), Department of Chemistry, Karnatak University, Dharwad.
4. Krishnamacharyulu, A G. **Critical studies on some analytical and technological aspects concerning wheat flour suitable for making bread.** (Prof Ch Suryaprakasa Sastry), Department of Chemistry, Andhra University, Waltair
5. Radha Ramana, D **Studies on metal complexes of aldacid hydrazones.** (Dr S Srihari), Department of Chemistry, Kakatiya University, Warangal
6. Renuka Devi, P. **Synthetic studies in the Indole field.** (Dr J S Biradar), Department of Chemistry, Gulbarga University, Gulbarga.
7. Satish, C D. **Synthesis, structure and reactivity of early transition metal complexes.** (Dr B S Chandrasekhar) Department of Chemistry, Gulbarga University, Gulbarga
8. Sivagnanasubramanian, P **Magnetic resonance investigations on some Biomimic transition metal complexs.** (Dr D Srinivas), Department of Chemistry, Bhavnagar University, Bhavnagar.
9. Vaghela, Prakash Kumar. **Studies on some compounds of clinical interest.** (Dr P B Trivedi), Department of Chemistry, Bhavnagar University, Bhavnagar.

Photonics

1. Sankararaman, S. **Investigation on thermal diffusivity of some selected material using laser induced photoacoustic techniques.** (Dr V P Nampoori), Department of Photonics, Cochin University of Science and Technology, Kochi.

Physics

1. Deka, Ranjita. **Some studies on quark mass and structure function in quantum chromodynamics.** (Prof D K Choudhury), Department of Physics, Gauhati University, Guwahati.
2. Kalita, Pradip Kumar. **Photoresponse characteristics of some II - VI thin films.** (Prof H L Das and Dr B K Sarma), Department of Physics, Gauhati University, Guwahati.
3. Varkey, K P. **Fabrication and characterization of spray pyrolysed cadmium sulfide homojunction solar cells.** (Dr K P Vijayakumar), Department of Physics, Cochin University of Science and Technology, Kochi.

INDIAN INSTITUTE OF INFORMATION TECHNOLOGY, ALLAHABAD

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[6] Applicants must send a Demand Draft of **Rs.100/-** drawn on any Nationalized Bank in favour of **O.S.D., I.I.I.T.**, payable at **Allahabad** along with the application at the address given on the top.

LAST DATE FOR RECEIVING THE APPLICATION : MAY 22, 2000

BUNDELKHAND UNIVERSITY, JHANSI

ADMISSION NOTICE 2000-2001

Bundelkhand University, established in the year 1975, situated in the heartland of India, has a sprawling campus that is fast developing a lot of beautiful structures, to add to the panoramic and scenic beauty of its surroundings. Nestled in the lap of the Vindhyachal, Bundelkhand University is fast adding facilities that are comparable to National and International Universities. The city of Jhansi has a unique place in Indian history and has been known for the unrelenting courage of Maharani Laxmibai. The annals of history are replete with the stories of the valor and courage of the Maharani. In keeping with this spirit, the Bundelkhand University has made an attempt to cater to the needs of the people of the region and the nation as a whole by introducing state-of-the-art technology and career oriented educational courses of International Standard. Bundelkhand University invites applications for the following courses.

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I. SCHOOL OF BASIC SCIENCES				
1. M.Sc.(Maths & Computer Application)	2 years	30	BSc Maths	C
2. M.Sc.(Statistics & Computer Programming)	2 years	30	BSc Maths/stats	C
3. M.Sc.(Operational Research & Computing)	2 years	30	BSc Maths/stats	C
4. M.Sc. (Geology)	2 years	40	BSc Maths/bio	C
5. B.Sc. (H) Statistics	3 years	40	10+2 Maths/Science	A
6. B.Sc. (H) Geology	3 years	60	10+2 Maths/Science	A
7. PG Diploma in Remote Sensing & Geo-environment	1 year	20	MSc/M Tech Geology	C
8 PG Diploma in Geo-engineering	1 year	20	MSc/M Tech Geology	C
9. PG Diploma in Geo-exploration & ore-processing	1 year	20	MSc/M Tech Geology	C
10 PG Diploma in Gemology	1 year	20	BSc Maths/bio	C
11. PG Diploma in rural technology	1 year	20	BSc Maths/bio	C
12. B.Tech.(Geo-Engg.)	4 years	40	BSc Geology	C
II. SCHOOL OF APPLIED SCIENCES				
1. M.Sc. (Applied Physics)	2 years	30	BSc Physics	C
2 M.Sc (Applied chemistry)	2 years	30	BSc Chemistry	C
3. M.Sc.(Electronics)	2 years	30	BSc Maths/Physics	C
4. M.Sc.(Polymer Science)	2 years	40	BSc Chemistry	C
5. M.Sc.(Bio-Physics)	2 years	20	BSc Physics/Bio-group	C
6. M.Sc.(Food Science & Technology)	2 years	40	BSc Chem/Phy/Bio-group	C
7. B.Sc. (H) Electronics	3 years	40	10+2 Maths/Science	A
8 B Sc (H) Food Science & Technology	3 years	60	10+2 Science	A
9. PG Diploma in Food Processing	1 year	20	BSc any group	C
10. PG Diploma in Food Preservation	1 year	20	BSc Food Science Tech/Chem	C
11. PG Diploma in Food Packaging	1 year	20	BSc Food Science Tech/Chem	C
12. PG Diploma in Food Quality Management	1 year	20	BSc Food Science Tech/Chem	C
13. M.Tech.(Food Technology)	1 5years	20	B Tech/MSc (FST,Bio-group)	C
14. B.Tech (Food Technology)	4 years	60	10+2 Maths/Science	A
III. SCHOOL OF LIFE SCIENCES				
1 M.Sc. Biochemistry	2 years	40	BSc (Bio-group)	C
2. M.Sc. in Microbiology	2 years	40	BSc (Bio-group)	C
3. M.Sc. in Biotechnology	2 years	40	BSc (Bio-group)	C
4. M.Sc. in Biosciences	2 years	40	BSc (Bio-group)	C
5. B.Sc. (H) Biochemistry	2 years	60	10+2, Bio/Chem	A
6 B.Sc. (H) Biotechnology	2 years	60	10+2, Bio/Chem	A
7. B.Sc. (H) Microbiology	2 years	60	10+2, Bio/Chem	A
8 B.Sc. (H) Biosciences	2 years	60	10+2, Bio/Chem	A
9. M.Sc Agroforestry	2 years	40	BSc Bio group	C
IV. SCHOOL OF ENVIRONMENTAL SCIENCES				
1 M.Sc. (Environment Science)	2 years	20	MSc Chem/B Tech	C
2 M.Sc. (Environment Management)	2 years	40	MSc Chem/B Tech	C
3 B Tech. (Environment Engineering)	4 years	60	10+2 Maths/Science	A
4. M.Tech.(Environment Engineering)	1.5years	20	B Tech(Civil/Env Engg)	C
V. SCHOOL OF PHARMACY				
1. Diploma in Pharmacy (D.Pharma)	2 years	60	10+2 Science	A
2. Bachelor of Pharmacy (B.Pharma)	4 years	60	10+2 Science	A
3. Master of Pharmacy (M.Pharma)	2 years	50	B Pharma	C
VI. SCHOOL OF INFORMATION TECHNOLOGY				
1. Master in Information Science & Technology(MIST)	2 years	30	BCA/BSc (Maths/Comp Sc/Electronics)	C
2. Bachelor in Information Science & Technology(BIST)	3 years	60	10+2 Maths/Science	A
3. Master in e-Commerce (M. e-Com.)	2 years	30	BCA/BSc (Maths/Comp Sc/Electronics	C
4. Master in Library & Information Science (MLIS)	1 year	40	B Lib & Info Sc 45%	D
5 Bachelor in Library & Information Science (BLIS)	1 year	60	Graduation 45%	D
6. Master in Library Automation (MLA)	1 year	30	B Lib & Info Sc 45%	D
VII. SCHOOL OF COMPUTER & SYSTEM SCIENCES				
1. Master in Computer Application(MCA)	3 years	60	Graduate with Maths in 10+2	C
2. PG Diploma in Computer Application(PGDCA)	1.5 years	30	BSc Maths/physics	C
3. M.Sc.(Computer Science)	2 years	40	BCA/BSc (Maths/Comp Sc/Electronics)	C
4. B.Sc. (H) Computer Science	3 years	60	10+2 Maths/Science	A
5. Bachelor of Computer Application(BCA)	3 years	60	10+2 Maths/Science	A
VIII. SCHOOL OF HOME SCIENCE				
1 B.Sc. (H) Home Science	3 years	40	10+2 Science	A
2. M. Sc. Home Science	2 years	20	BSc (Home Science/FST/ Biochem)	C

Contd. next page

IX. SCHOOL OF ECONOMICS					
1.	Master of Applied Economics (MAE)	2 years	60	Graduation 45%	D
2.	Master of Banking Economics & Finance (MBEF)	2 years	60	Graduation 45%	D
3.	Master of Financial Control & Analysis (MFCA)	2 years	60	Graduation 45%	D
4.	Master of Business Economics (MBE)	2 years	40	Graduation 45%	D
X. SCHOOL OF MANAGEMENT					
1.	Master of Business Administration (MBA) NRI ONLY	2 Years	06	Graduation	D
2.	Master of International Business Management (MIBM)	2 years	60	Graduation	D
3.	Bachelor of Science (Business Administration)	3 years	60	10+2	B
4.	Bachelor of Science (Real Estate & Finance)	3 years	30	10+2	B
5	Bachelor of Science (Construction Management)	3 years	30	10+2	B
6.	Master of Health Care Administration (MHCA)	2 years	20	MBBS or Nursing or equivalent	C
7	Diploma in Human Resource Management	1 year	20	Graduation	D
8	Diploma in Labour Management	1 year	20	Graduation	D
9	Diploma in Marketing Management	1 year	20	Graduation	D
10	Diploma in Human Resources Development	1 year	20	Graduation	D
XI. SCHOOL OF TOURISM & HOTEL MANAGEMENT					
1	Bachelor of Hotel Management	4 years	40	10+2	B
2	Master of Travel & Tourism Management	2 years	40	Graduation	D
3	PG Diploma in Destination Management	1 year	20	Graduation	D
4.	Certificate Course in Airlines Ticketing & Tour Planning	3 months	20	Graduation	D
5.	Certificate Course in Cargo Management	3 months	20	Graduation	D
XII. SCHOOL OF LANGUAGES					
1	Certificate course in Functional English	1 year	40	10+2 45%	B
2.	Certificate course in French	1 year	40	10+2 45%	B
3	Certificate course in Functional Sanskrit	1 year	40	10+2 45%	B
4	Certificate course in Pali	1 year	40	10+2 45%	B
5.	Certificate course in Functional Hindi	1 year	40	10+2 45%	B
6	Certificate course in Urdu	1 year	40	10+2 45%	B
XIII. SCHOOL OF LAW					
1	B Com.-LL.B	5 years	60	10+2	B
2	B A.-LL.B	5 years	60	10+2	B
3	LL B	3 years	60	Graduation	D
4	LL M	2 years	20	LL B	D
5	PG Diploma in Labor Law	1 year	30	LL B	D
6	PG Diploma in Taxation	1 year	30	LL B	D
7	PG Diploma in Consumer Protection	1 year	30	LL B	D
8	PG Diploma in Criminology	1 year	40	LL B	D
9	PG Diploma in Intellectual Property	1 year	30	LL B	D
XIV. SCHOOL OF MASS COMMUNICATION					
1	Master in Mass Communication & Journalism (MMCJ)	2 years	40	Graduation	D
2	Bachelor of Mass Communication & Journalism (BMCJ)	3 years	60	10+2	B
3	PG Diploma in Journalism	1 year	40	Graduation	D
XV. DR. B.R. AMBEDKAR SCHOOL OF SOCIAL SCIENCE					
1	Master of Social Works (MSW)	2 years	40	Graduation	D
2	Master of Public Administration (MPA)	2 years	60	Graduation	D
3	PG Diploma in Forensic Science	1 years	20	BSc any group	C
4	M.A. (Applied Psychology)	2 years	40	BA with Psychology	D
5	M.A (Women Studies)	2 years	20	Graduation	D
6	M A (Anthropology)	2 years	40	BSc(Anthropology)	C
XVI. SCHOOL OF INTERNATIONAL STUDIES					
1	PG Diploma in International Humanitarian Law	1 year	40	Graduation	D
2	PG Diploma in Human Rights	1 year	40	Graduation	D
XVII SCHOOL OF VOCATIONAL STUDIES					
1	B.A. (Vocational Studies)	3 years	60	10+2	B
2.	B.Sc (Vocational Studies)	3 years	60	10+2	B
XVIII. SCHOOL OF MUSIC & FINE ARTS					
1	M.A. (Music) Vocal	2 years	30	Graduation with music	D
2	M.A. (Music) Instrumental	2 years	30	Graduation with music	D

NOTE: ◆ *Selection Procedure involves a written test and GD/Interview where necessary. Details can be had from the Academic Bulletin.*

- ◆ ***Application form and Academic Bulletin can be had personally from the University counter, Jhansi on payment of Rs 500/- (Rs Five Hundred only) in the form of a demand draft (SC/ST candidates Rs 125/-)or by sending a demand draft of Rs 575/-(inclusive of postage charges). (SC/ST candidates Rs 200/-).***
- ◆ ***Academic Courses have been divided to Four Groups for the purpose of Entrance Test. Only one form is required to be filled for courses belonging to the same group. However, separate forms are required to be filled in for courses in separate groups. Separate written test will be held for each group.***
- ◆ ***Drafts should be sent in favor of Finance Officer, Bundelkhand University, payable at Jhansi.***
- ◆ ***The Entrance examination will be held at New Delhi,Hyderabad,Mumbai, Calcutta. Bangalore and Jhansi.However in case of insufficient candidates at any center, the University reserves the right to allot the nearest center.***
- ◆ ***The entrance test will be held on 17th June 2000.***
- ◆ ***Last date for the receipt of completed form is 3rd June 2000.***
- ◆ ***Eligibility percentage in all cases shall be 50% except where otherwise mentioned.***
- ◆ ***23% seats are reserved for SC/ST & 27% seats are reserved for OBC.***
- ◆ ***50% of the intake is offered as free seats, 35% as payment seats & 15% as NRI seats in each category.***
- ◆ ***Candidates appearing/have appeared in qualifying examination may also apply, provisionally, subject to their obtaining marks as per minimum eligibility.***
- ◆ ***The decision of the University will be final in case of admissions.***

M. C. AGARWAL
Registrar

ADMISSION TO

Kasturba Medical College

College of Dental Surgery

MANIPAL and MANGALORE

MAHE Admissions 2000

I. **MBBS/BDS:** Admissions are on the basis of rank obtained in all India Under Graduate Entrance Test (UGET 2000). Foreign/NRI candidates can write to the Admission Officer for details of admission under Foreign/NRI category.

- **Schedule & Centres for UGET 2000:** July 09, 2000 Bangalore Calcutta Chandigarh Chennai Delhi Ernakulam Hyderabad Mangalore Manipal Nagpur

- **Eligibility:** (1) Indian nationals, born on or before December 31, 1983 (2) Pass in Physics, Chemistry, Biology and English individually at 10+2 Higher Secondary Examination or equivalent from an Indian University/Board with not less than 50% marks taken together in Physics, Chemistry and Biology (3) Five years of schooling in India including Class 11 & 12 (4) **Candidates appearing or appeared and expecting to pass the final qualifying examination with requisite percentage of marks can also apply and appear for UGET 2000.**

II. (i) **MD/MS/PG Diploma/MDS :** Foreign/NRI candidates can apply under the quota of seats reserved for them. All candidates are admitted on the basis of rank obtained in the written Entrance Test.

SPECIALITIES OFFERED					
MD	General Medicine	MD	Pharmacology	M Ch	Cardiothoracic Surgery
MD, DCH	Paediatrics	MD, DCP	Pathology	M Ch	Paediatric Surgery
MD, DGO	Obstetrics & Gynaecology	MD	Microbiology	MDS	Oral Pathology
MD, DA	Anaesthesiology	MD	Biochemistry	MDS	Prosthodontics
MD, DVD	Skin & VD	MS	General Surgery	MDS	Pedodontics
MD, DMRD	Radiodiagnosis	MS DLO	Otorhinolaryngology	MDS	Periodontics
MD, DMRT	Radiotherapy	MS DO	Ophthalmology	MDS	Oral & Maxillofacial Surgery
MD, DPM	Psychiatry	MS, DOrtho	Orthopaedics	MDS	Orthodontics
MD	Community Medicine	MS	Anatomy	MDS	Conservative Dentistry
MD	Hospital Administration	DM	Neurology	MDS	Community Dentistry
MD	Forensic Medicine	M Ch	Urology	MDS	Oral Medicine & Radiology
MD	Physiology	M Ch	Neuro Surgery		

- **Schedule & Centres for Entrance Test:** JUNE 18, 2000 at Manipal and Mangalore
  Foreign/NRI Category JULY 01, 2000 at Manipal only

- **Eligibility: Foreign/NRI Category** (a) Pass in MBBS/BDS or equivalent recognised by Medical/Dental Council of India (b) Registration with any State Medical/Dental Council in India (c) Completion of compulsory rotatory **internship on or before August 31, 2000. Those completing internship after August 31, 2000 and before December 31, 2000 could be permitted to join the course in January 2001 (d) NRI candidates must be supported by either** Parents/Brother/Sister/Spouse/Spouse's Parents or Spouse's Brother/Sister having NRI status

  Other Candidates: Indian Nationals fulfilling (a), (b) & (c) as above

- (ii) **DM/MCh: Admissions are on the basis of past academic and professional record and a selection test consisting of Departmental Written Test, Clinical Examination and Viva Voce**

- **Schedule and Centre for Selection Test:** AUGUST 7 & 8, 2000 **at Manipal only**

- **Eligibility :** (a) Indian Nationals (b) Pass in MD General Medicine or Paediatrics for DM, MS General Surgery for MCh and MS General Surgery or Orthopaedics for MCh Neuro Surgery, recognised by Medical Council of India (c) Permanent registration with any State Medical Council in India.

- **PROSPECTUS AND APPLICATION :** Write to the **Admission Officer at the address given below by enclosing (1)** crossed demand draft for Rs. 750 (not refundable) in favour of **MAHE payable at Manipal or Udupi (Karnataka) (2)** request on a plain paper mentioning clearly the course applied for, the DD details and the address in CAPITAL LETTERS (include Telephone number and E-Mail address, if any) to which the prospectus and application form is to be sent Candidates must also write their name, address and the course applied for on the backside of their DD.

प्रज्ञानं ब्रह्म

MANIPAL ACADEMY OF HIGHER EDUCATION

DEEMED UNIVERSITY

MADHAV NAGAR, MANIPAL – 576 119

Tel : (08252) 71201 Extn. 2499 2574 Fax 70062 E Mail: admission@mahe.ernet.in

- The Prospectus and Application material can also be purchased across the counter (subject to availability) on payment of Rs. 750 (including Bank service charges) from the following places from April 12, 2000 till the end of business hours on May 20, 2000

- **SYNDICATE BANK: (For courses I only): Ahmedabad:** Neptune Tower, Opp. Nehru Bridge, Ashram Road – 9 **Bhopal:** 102/103, Kalachand Mansion, Berasia Road, Near Bhopal Talkies – 1 **Bhubaneshwar:** (1) Kalpana Square, Khurda Dist. – 14 **Calcutta:** (1) 26, Shakespeare Sarane, I Floor, Camac Street – 17 (2) 3, Central Road, Jadavpur – 32 (3) BB-24, Sector 1, Salt Lake City – 64 **Chandigarh:** SCO 66/67, Sector 17B, Bank Square – 17 **Guntur:** 24-2-87, Chennai Trunk Road – 3 **Hyderabad:** (1) 5-9-246/1, Abid Road, Opp Grammar School – 1 (2) 8-2-461/464, Road No.1, Banjara Hills – 34 **Jaipur:** Jaipur Towers, MI Road – 1 **Lucknow:** 31/56, Mahatma Gandhi Marg, Opp. Capoor's Hotel, Hazratganj – 1 **Mumbai:** Sangam Cinema Compound, 127, Andheri Kurla Road, J B Nagar, Andheri (E) – 59 **Nagpur:** Ulhas Bhavan, Law College Square – 10 **New Delhi:** (1) Super Bazar Building, Connaught Circus – 1 (2) Defence Service Officers' Institute, Dhaula Kuan – 10 (3) Building No. 2 & 3, Central Market, West Punjabi Bagh – 26 (4) Lajpat Nagar Branch, C-34, I Floor, Defence Colony, DDA Office-cum-Shopping Complex, Opp. Moolchand Hospital – 24 **Patna:** Sheohar Sadan, Frazer Road Corner – 1 **Secunderabad:** (1) 3-1-28, 29,30/1, Rashtrapathi Road – 3

- **LORD KRISHNA BANK (Courses I and II): Bangalore:** Shivashankar Plaza, Richmond Circle – 27 **Chennai:** Precision Plaza, 281, Mount Road – 18 **Chengannure:** Ambattu Buildings, Court Road – 21 **Coimbatore:** Cheran Towers, Govt Arts College Road – 18 **Ernakulam:** M G Road (North End), Prabhu Towers, Near Cochin Stock Exchange – 35 **Kottayam:** I Floor, CSI Baker Complex, Baker Junction – 1 **Kozhikode:** Paramount Towers, Town Hall Road – 1 **Mangalore:** KMC Campus, Light House Hill Road – 1 **Manipal:** Centre for Basic Sciences Building - 19 **Mumbai:** 201, BNG House, Near Central Camera, D N Road, Fort – 1 **New Delhi:** Choudhary Building, K/2 Connaught Place – 1 **Trivandrum:** Kanmpanal Arcade, I Floor, East Fort – 23.

- **ICDS Ltd : (Courses I and II): Bangalore:** Manipal Centre, Ground Floor, South Block, Dickenson Road – 42 **New Delhi:** Arunachal, Flat No 306/307, Third Floor Barakhamba Road – 1 **Secunderabad:** I Floor, Oxford Plaza, Sarojini Devi Road – 3 **Vijayawada:** Upstairs, SyndicateBank, Bunder Rd, Labbipet – 10 **Vishakapatnam:** I Floor, Kanakatala Complex, Asilmetta Junction – 3

IMPORTANT DATES : Last date for sale of Applications **May 20, 2000**
Last date of reciept of filled Applications **May 22, 2000**

WARNING : • MAHE will not be responsible for any delay/loss in transit • Applications received after the due date or incomplete applications will be rejected • Admissions are done strictly on merit • We do not have management quota, reserved seats payment seats of any kind • We have no middlemen or agents for admission • Applicants are warned against possible cheating by unscrupulous people guaranteeing admission by extracting large sums of money • Prospectus for courses I and II are different. Candidates must ensure that they get the correct prospectus

OTHER COURSES : Bachelor courses in Physical Therapy, Occupational Therapy, Medical Laboratory Technology, Nuclear Medicine Technology, Respiratory Therapy Technology, Medical Record Technology, Speech, Language & [illegible] Nursing, Master courses in Microbiology, Biochemistry, Anatomy, Physiology, Pharmacology, Yoga [illegible] Physical Therapy, Panchakarma, Nursing, Communication and Media Studies, Medical [illegible] MLS, CAD, Business Administration, MPhil Courses in Clinical Psychology and Nursing [illegible] for these courses will be issued separately. For more details visit us at: [illegible]

CLASSIFIED ADVERTISEMENTS

M.E.S. COLLEGE OF ARTS & COMMERCE

Zuarinagar — Goa 403726

Invites applications for the following posts.

1 Lecturer in Accountancy/Commerce (Full Time) — 3rd time advertised— Scheduled Caste, 2 Lecturer in Sociology (Full Time) — 3rd time advertised —Scheduled Tribe, 3 Lecturer in Accountancy/Commerce (Full-Time) — 3rd time advertised — Other Backward Class, 4 Lecturer in Sociology (Full Time) — 2nd time advertised— Other Backward Class

For each of the above posts, candidates from the reserved category specifically mentioned against each post, need apply. If no suitable candidates from reserved category is available, then candidates from open category will be appointed on purely temporary basis for one academic year. However, if no suitable candidates from scheduled tribe category is available then the vacancy will be transferred to the scheduled caste category In other words, in such case, candidates from scheduled caste category will be considered for appointment to the post reserved for scheduled tribe candidate

Academic Qualifications

At least Master's Degree in the relevant subject (i e minimum 6 papers) with atleast 55% marks or its equivalent grade Good academic record and candidates should have cleared the Eligibility Test for Lecturers conducted by UGC, CSIR or similar test accredited by U G C Desirable, M.Phil. or Ph D

In case candidates having passed the said eligibility test and/or candidates from RESERVED categories are not available, candidates fulfilling other conditions would be considered for appointment on purely temporary basis for one year.

Scale of Pay: For Full-Time Lecturers: Rs 8000-275-13500 plus admissible allowances

Service conditions

As prescribed by Goa Unviersity, Director *of Higher Education, Govt. of Goa, and other* competent authorities.

Persons who are already employed shall send their applications through proper channel. Break in service; if any, should be accounted for.

Interested candidates should apply giving full details of academic qualifications from SSC onwards clearly indicating the subjects offered, marks scored and class/division obtained at all public examinations, teaching experience, address, date of birth etc.

True copies of caste certificate and marks statements of all public examinations passed should be enclosed.

Applications duly completed in all respects should reach the Principal within 15 days from the date of publication of this advertisement.

H.T. Nagvenkar
Principal

SARDAR VALLABHBHAI REGIONAL COLLEGE OF ENGINEERING & TECHNOLOGY, SURAT-395007

(Gujarat State)

Applications in prescribed form are invited for the Post of PRINCIPAL at this Institution. The pay scale and necessary qualifications are as per AICTE norms. The details regarding general information, age limit etc. will be furnished alongwith application form, which can be had on payment of Rs 50/- for open (**Rs. 2/- for SC/ST/OBC of Gujarat State only**) in form of I.P.O (On S V R Post Office, Surat) or D D (on State Bank of India, SVRCET Branch, Surat Code No 3320) in favour of PRINCIPAL, S V R College of Engg & Tech , Surat

Last Date for issue of Form **10/05/2000**

Last date for receipt of completed application form **22/05/2000**

PRINCIPAL

WANTED

Applications in prescribed form are invited for the post of Lecturer in Statistics (UGC) under the M O.C Management, so as to reach the undersigned withing **one month** from the date of this notification. Age and qualifications: As prescribed by the Government/University/ UGC. Applications forms can be had from the office of the undersigned on payment of Rs 150/- and by post Rs 160/-

Secretary
M.O.C. Colleges
Devalokam, Kottayam-686038

ALAGAPPA UNIVERSITY KARAIKUDI 630 003

Applications are invited from eligible candidates for the following posts in the prescribed form in duplicate.

College of Education—Lecturer (History — Post 1) — OBC, Lecturer (Commerce) — Post 1 — OBC, Lecturer (Education) — Post 1 — SC.

UGC Scale of pay is applicable for all the posts.

Qualification:

1. Lecturer (History); Lecturer (Commerce):

Master's Degree in relevant Discipline with atleast 55% marks or its equivalent grade in the U.G.C 7 point scale and M Ed with atleast 55% marks, with a consistently good academic record

Lecturer (Education)

Master's Degree in any discipline with atleast 55% marks or its equivalent grade in the U G.C. 7 point scale and M Ed. with atleast 55% marks with a consistently good academic record

2 Applicants should have cleared the eligibility test (NET) conducted by the U G C., C S I.R , or similar test accredited by UGC. (SLET)

Application forms can be had from the Registrar, Alagappa University, Karaikudi on payment of Rs 250/- by means of Demand Draft drawn on any nationalised bank in favour of "The Registrar, Alagappa University" payable at Karaikudi

Candidates who are already in service should send their applications through proper channel so as to reach the Registrar on or before the last date

Filled in application should reach the Registrar **on or before 5th May 2000.**

The University reserves the right to fill up the vacancies notified

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TEZPUR UNVIERSITY

(A Central University established by an act of Parliament)

Napaam, Tezpur-784 028, Assam

CORRIGENDUM
Dated the 10th of April, 2000

"M.Tech. in Energy Technology. Eligibility: B.E./B.Tech. degree in MechanicalElectrical/Chemical/Agricultural Engineering with first class or M.Sc in Physics/Chemistry with at least 55% marks" as per **office letter No. TU/Genl63/99-00[illegible]A dated 4.4.2000 is ammended as "M.Tech. in Energy Technology: Eligibility: B.E./B.Tech. degree in Mechanical/Electrical/Chemical/Agricultural Engineering with minimum 60% marks or M.Sc. in Physics/Chemistry with at least 55% marks".**

Sd/- Dr. B. Sahariah
Academic Registrar

INDIRA GANDHI NATIONAL OPEN UNIVERSITY

Maidan Garhi, New Delhi - 110 068

ADMISSION TO MANAGEMENT PROGRAMME 2001

The Management Programme of IGNOU offers the following degree/diplomas:

Master of Business Administration (MBA)
Diploma in Management (DIM)
Post Graduate Diploma in Management (PGDIM)
Post Graduate Diploma in Human Resource Management (PGDHRM)
Post Graduate Diploma in Financial Management (PGDFM)
Post Graduate Diploma in Operations Management (PGDOM)
Post Graduate Diploma in Marketing Management (PGDMM)

All the programmes would have multimedia design using technology aided delivery systems These will be offered through countrywide Study Centres The University will be admitting the students for the above degree/diplomas of the Management Programme starting January 2001 and July 2001, through the entrance test **'OPENMAT-VIII'** to be held on Sunday, the 6th **August 2000** at nearly 160 centres all over the country

Eligibility for Admission

Bachelor's Degree + 3 years' Supervisory/Managerial/ Professional experience* **OR** Degree in Engineering/ Technology/ Medicine/Architecture/Law, etc **OR** Professional Qualifications in Accountancy, Cost & Works Accountancy, Company Secretaryship, etc **OR** A Master's Degree in any subject

Note: Non-graduates with 6 years' Supervisory/ Managerial/Professional experience* are eligible to apply for **DIM only.**

There is no age bar for admission to above Programmes

'Student Handbook and Prospectus' for Management Programme – 2001, can be obtained from **The Director (SR & E), IGNOU, Maidan Garhi, New Delhi 110 068 & all the Regional Centres of IGNOU,** including **IGNOU-ARMY, IGNOU - AIR FORCE** Recognised Regional Centres, whose addresses are given below, by sending a sum of Rs 350/- through a DD/ IPO **in favour of IGNOU** payable at the city from where it is required by post, or by paying **Rs.300/- in cash** at the respective sale counters Please write your name and address on the back of the DD/IPO

* Experience means work experience during or after acquiring the qualification as specified Work experience requirement of 3/6 years should be fulfilled as on 25th October, 2000 or 25th April 2001, as the case may be

Filled in form for entrance exam. must reach to The Director (SR & E), IGNOU, Post Bag No.-2, Maidan Garhi, New Delhi - 110 068, on or before 30th May, 2000.

Addresses of IGNOU Regional Centres, Recognised Regional Centres

1 H No 3-6-740, St No 12, Himayat Nagar, Hyderabad - 500 029
2 Navagiri Road, 1st Bye-Lane, Chandmari, Guwahati - 781 003
3 170-A, Pathputra Colony, Patna - 800 013
4 52, Tughlakabad Institutional Area, Near Batra Hospital, New Delhi - 110 062
5 268-C, Pitru Ashish, Ishwar Bhawan Road, Navrangpura, Ahmedabad - 380 009
6 Old Govt College Campus, Railway Road, Opp Liberty, Karnal - 132 001
7 Rain Basera Building, Khalini, Shimla-171 002
8 N S S S Kalyana Kendra, No 293, 39th Cross, Jayanagar, 8th Block, Bangalore - 560 082
9 Mamangalam, Palarivattom P O , Cochin-682 025
10 E-7/649, Arera Colony, Bhopal - 462 016
11 3rd Floor, PMT Commercial Complex-I, Shankersheth Road, Pune - 411 042
12 Sunny Lodge, Nongthymmai, Nongshilliang, Shillong - 793 014
13 C-1, Institutional Area, Bhubaneshwar - 751 013
14 SB-12, Bapu Nagar, Bhawani Singh Marg, Jaipur - 302 015
15 C I T Campus, Taramani, Chennai - 600 113
16 B-1/33, Sector-H, Aliganj, Lucknow - 226 024
17 Bikash Bhawan, 4th Floor, North Block, Bidhan Nagar, Calcutta - 700 009
18 No 2, Azad Bhawan Road, I P Estate, New Delhi - 110 002
19 SPMR College of Commerce, Canal Road, Jammu - 180 001
20 Mantoo House, Raj Bagh, Near Masjid Al-Farooq, Srinagar - 190 008
21 176 A, Ajabpur Kalan, Dehradun - 248 001
22 457/A, Ashok Nagar, Ranchi - 834 002

NOTE: Applicants from Army & IAF can obtain OPENMAT VIII Form from the following locations.

Regional Dir., IGNOU-ARMY Recog. Reg. Centres:

23 Brig Edu HQ Central Command, Lucknow, U P
24 Col Edu HQ Northern Command, Jammu J&K
25 Col Edu HQ Western Command, Chandimandir, Haryana
26 Col Edu HQ Southern Command, Pune, Maharastra
27 Col Edu HQ Eastern Command, Calcutta, W B

Regional Director, IGNOU-IAF Recog. Reg. Centres:

28 HQ WAC, IAF, Subroto Park, New Delhi - 110 010
29 HQ CAC, IAF, Bamrauli, Allahabad - 211 012
30 HQ EAC, IAF, C/O-99 APO
31 HQ MC, IAF, Vayusena Nagar, Nagpur - 440 007
32 HQ SWAC, IAF, Sector-9, Gandhi Nagar - 382 009.
33 HQ SAC, IAF, Post Akkulam, Trivandrum - 695 011
34 HQ TC, IAF, Post JC Nagar, Bangalore - 560 006.

Director (SR & E)

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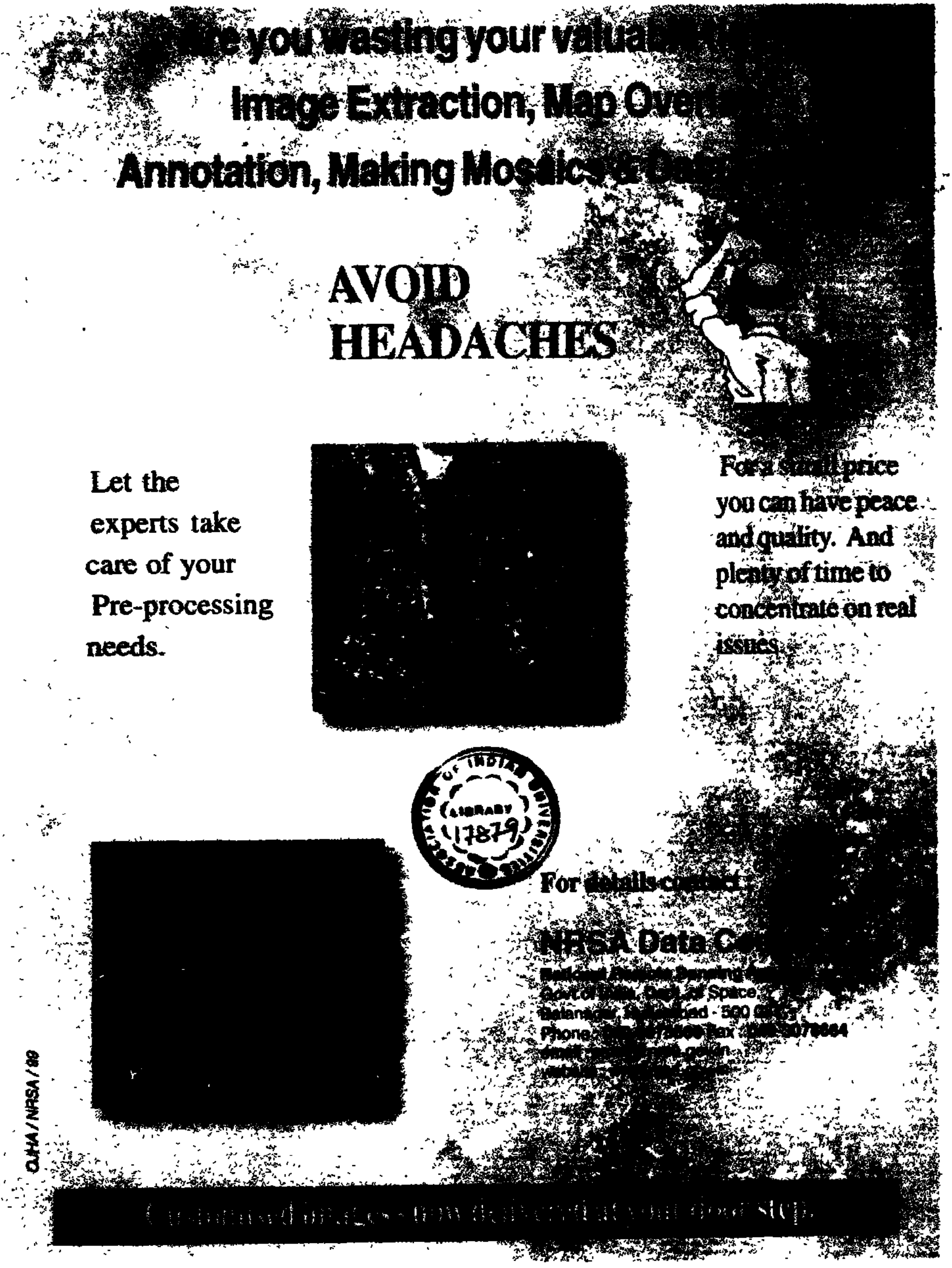

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